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Mountain Resources Management Plan

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SOUTHERN HIGHLANDS

MOUNTAIN RESOURCES MANAGEMENT PLAN

Volume II

Prepared

For

States of:

Georgia
North Carolina
South Carolina

This publication was prepared as part of the Tri-State Southern Highlands Study. The Study is conducted jointly by the States of North Carolina, South Carolina, and Georgia with partial funding by the U.S. Department of Interior's Bureau of Outdoor Recreation and the Appalachian Regional Commission.

By

Georgia Department of Natural Resources
North Carolina Department of Administration
South Carolina Department of Parks, Recreation, and Tourism

June, 1974

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Appendix A

The Life Support Systems of the Southern Highlands Region

THE LIFE-SUPPORT SYSTEMS OF THE SOUTHERN HIGHLANDS REGION

Basically, the Southern Highlands is comprised of forests. But the life-support systems of these mountains are far more complex and could be conveniently divided into two major categories: natural systems and man-manipulated systems.

This appendix, which is germane to South Carolina and Georgia, except that part focusing on transportation and urban development, has been adapted from a paper by Dr. Dan Pettilo, Cullowhee, North Carolina. Dr. Pettilo served as a consultant to the North Carolina Department of Administration during the course of the Southern Highlands study.

NATURAL SYSTEMS

Based on the prominent feature of each and the wildlife species generally found therein, the natural systems can be described in six categories: forests, shrub lands, grasslands, wetlands, streams and rock outcrop lands.

Forests

By far the greater proportion of the region is covered by forests, probably exceeding 75 percent of the total area. These forests can be further classed into two major units: (1) the Spruce-fir Forest of the highest elevations and (2) the Deciduous Forest. The Spruce-fir Forest is well developed on peaks that exceed 5,000 feet and may extend down to 3,000 feet on the cooler north slopes. The Deciduous Forest starts at the edge of the Spruce-fir Forest and extends to the foothills of the mountains. While the primary community of the Spruce-fir Forest is comprised of Fraser fir and red spruce, several communities make up the Deciduous Forest. On the higher elevations one notes various hardwood species such as American beech, yellow buckeye, yellow birch, northern red oak, etc. On low ridges and upland flats, oaks and hickories predominate. On the drier low ridges, pines often predominate, such as shortleaf, pitch, Virginia or scrub-pine, and white pine. In the coves and ravines between ridges is a particularly well developed forest, often described as two segregates: (1) cove hemlock and (2) cove hardwoods. It is in this cove forest that the ancient characteristic species of the Tertiary Period is so well displayed. Primitive magnolias, yellow-wood, buckeyes, basswood, and many others are dominants here. Likewise, a rather ancient character is demonstrated by eastern hemlock cove forests with its understory of rhododendrons and primitive mosses, as is well illustrated in Joyce Kilmer Memorial Forest.

These forests are described as the relatively stable communities which develop in undisturbed areas. Disturbance is of common occurrence, however, and one may note various stages of succession from a barren field to weed fields to grass fields to bramble (or shrubs) to pines (or fire cherries, yellow birch, etc. at high elevations) to the climax forest. Thus, the forest may be in any of many development stages.

Larger wild animals which are associated with the forests include bear, deer, and wild boar. The bears have been restricted mainly to the more remote areas, particularly high elevations and rough terrain. Deer are of wider distribution but are of low density due to high hunting pressure. Wild boar are not widely distributed but may be expected to spread from present locations in the Cheoahs, Snowbirds, Smokies, Nantahalas, and perhaps part of the Blue Ridge.

Shrub-Lands

Some very steep and shallow soil areas do not maintain forests. These areas are often termed balds or slicks. In the Smokies and to a somewhat lesser extent in the Balsams and Black Mountains, are heath balds. The composition of these varies, depending on local conditions. The Smokies are usually covered with evergreen, Carolina and purple rhododendrons or sand myrtles; the Blacks are dominated with purple rhododendron. Sometimes these heath balds are simply successional stages and are in the process of returning to forests, as is illustrated by shrub lands dominating the Shining Rock Wilderness.

Grasslands

Less frequently at high elevations one encounters grass balds. These are poorly understood with theories on their origins about as numerous as the balds. Regardless of their origins, all are in the slow successional process of becoming forests. This process is retarded by grazing and since most are now in federal land holdings, cattle grazing has been excluded. A number of smaller mammals are often associated with grass balds and also their predators. In the Shining Rock Wilderness Area higher densities of cottontail rabbits and woodchucks results in higher incidence of foxes and bobcats. Recently, over-wintering golden eagles have been observed here, relying on the presence of the above prey species for their food.

Wetlands

Very rare in the region are low gradient wetlands. Most swamps and bogs have been drained or filled for man's use. There

yet remains some small areas of these important wildlife refuges and some protection will be necessary if their species are allowed to survive.

Probably the more ancient of the wetland communities are bogs. These are characterized by the spongy sphagnum moss cover and various plant species such as pitcher plants, cottongrass, various orchids, etc. Some of the best remaining examples of these occur at the Pink Beds north of Brevard and Horse Cove near Highlands.

Swamps are more recently developed wetlands. They are characterized by open water or mud, an abundance of sedges, rushes, or other species rooted in the mud. Bogs and swamps make excellent wildlife habitats. Beaver often inhabit such areas and beaver ponds then attract ducks and other water fowl. Even where beaver are absent, various small rodents, turtles, etc. make their home here. Deer frequently browse bogs. Various fruiting bushes, grasses, sedges and herbs make these wetlands important wildlife food resources for the region.

Streams

Except for the mountains themselves, perhaps the most cherished element of the Southern Highlands Region is an abundance of cool, clear streams. The headwaters of these streams are generally associated with steep forested slopes. These babbling brooks and splashing creeks have a high oxygen content but have low temperature and nutrient content. For this reason they support specialized habitats needed by native and stocked trout. After the creeks empty into rivers and have been warmed by sunlight and accumulated nutrients from adjacent lands, they are able to support other fishes such as bass and brem. Unlike the small streams, rivers seldom drop quickly enough to produce waterfalls. When rivers do have falls, however, they are very spectacular as is well illustrated by Looking Glass Falls of the Davidson River, High Falls of the Little River near Brevard, Dry Falls and Cullasaja Falls of the Cullasaja River west of Highlands, and Whitewater Falls of the Whitewater River near the South Carolina line.

Rock-Outcrop Land

Quite different in most respects from the previous systems are rock-outcrop communities. Species associated with this habitat must either be able to withstand the rigors of heat and drought or be lucky enough to grow in a permanent seep zone. Thus, it is possible to find almost desert-like conditions within a few inches of bog-loving plants. Most of the outcrops of the Southern Highlands are cliffs, but there are flat outcroppings in the

vicinity of Brevard and Hendersonville. Quite often, the cliffs have a flatter rim and then become rocky woods farther back. This is a fragile but very important zone for various wildlife species, for here one finds the various mast-producing shrubs, expecially in the seepage zones. They also give a visual contrast to the forested and grassy ecosystems predominating the region.

MAN-MANIPULATED SYSTEMS

All life-support systems of the Southern Highlands Region have had some influence from man's activities. These may have been minor, as in the primeval forests of remote portions of the Great Smoky Mountains where only intrusions by foot may have occurred on occasion, or the influence may have been major, such as the flooding of the Little Tennessee River Valley by the Fontana dam.

Transportation

Transportation system in the Southern Highlands is dominated by highways, most of which developed along narrow mountain valleys or ridgelines. Routes that are of overall importance include U. S. 19, 19A, 23, 64, 441, 129, 70, 74, Interstate 26 and Interstate 40. The Blue Ridge Parkway though "designed especially for motor recreation", functions as a significant element of the region's transportation system.

Most highways in Southern Highlands contain segments that are quite scenic. However, since these scenic segments usually traverse through natural or wild areas which are extremely sensitive to destruction, their transportation utilization must be carefully balanced with the ability of the environment to absorb the potentially damaging impacts.

Roads can play a large part in the initial destruction of a natural area. During the construction phase, the road building operation opens up scars on the landscape that on the infertile mountain soil are slow to heal. The cuts and fills necessary to maintain a level road surface in mountainous terrain are hard to stabilize and may continue to erode and wash silt into the streams in the watershed for years afterward. A road has other, more subtle adverse affects on the environment than those in the immediate road area. The vehicles using the roadways have been the number one air pollution problem for a number of years. The roadways have had a very significant impact of the appearance of mountainsides, especially notable along I-40 in the Pigeon River gorge and the Blue Ridge Parkway along the Blue Ridge mountaintops. Then there is the addition of pollutants to water systems, whether it is in the form of accidental spills or from oil, salt, or other materials which wash from the highway pavements.

In addition to highways, the Louisville and Nashville Railroad and Southern Railroad provide rail access to Southern Highlands. Scheduled air carrier services are available only at the Asheville Municipal Airport, although most major urban centers in the region are within the easy reach of a general aviation and/or local utility airport.

Urban Development

In order to better describe the existing development in the Southern Highlands Region, discussion of the Highlands will be broken down into the two subregions of Multi-County Planning Region A (Cherokee, Clay, Graham, Haywood, Jackson, Macon, and Swain Counties) and Multi-County Planning Region B (Buncombe, Henderson, Madison, and Transylvania Counties).

Multi-County Planning Region A - The largest concentration of existing development of this subregion has occurred in and near the cities of Canton, Waynesville, and Hazelwood in the eastern part of the subregion. These cities had a larger population in 1970 than all of the other municipalities in the subregion combined. The urban development associated with these cities extends nearly the entire width of Haywood County. This pattern of growth undoubtedly represents a response to the transportation system and the favorable topography for urban development present through the central part of the county. The major highways and railroads from Asheville to both Georgia and Tennessee pass through this area and one of the largest areal expansions of land with slopes suitable for urban development in the subregion is located here.

A significant amount of existing development is also present in the cities of Murphy and Andrews located in the Valley River Valley in the southwestern part of the subregion, and in the cities of Sylva, Franklin, and Bryson City which for a u-shaped pattern near the center of the subregion. Some urban development has occurred in areas contiguous to these cities; however, the magnitude of growth has been much less than that experienced in the Canton-Waynesville-Hazelwood area. Urban growth in the other incorporated towns in the subregion has been limited.

In addition to the urban development that has occurred in the incorporated towns, several additional areas in the subregion have experienced urban development. The most notable of these areas include: (1) Maggie, a resort community located in the western part of Haywood County; (2) Cherokee, the center of the Cherokee Indian Reservation in Swain County; and (3) Cullowhee, the location of Western Carolina University a few miles south of Sylva.

The most significant industrial development in the subregion has occurred in or near the cities of Canton, Waynesville, and Hazelwood. Industrial employment centered on these cities is nearly as large as the remainder of the industrial employment in the subregion. However, some industrial development is associated with most of the incorporated towns in the subregion, with the industrial development in or near the cities of Sylva, Franklin, Bryson City, Andrews, and Murphy being the most extensive.

Multi-County Planning Region B - Urban development in the subregion has historically been centered around Asheville, but significant development has also occurred at Hendersonville, Brevard, and in several of the smaller municipalities. Physical constraints in the area has caused this development to be confined primarily to the Valley of the French Broad River and its tributaries.

Physical constraints on urban development are especially apparent around Asheville where the presence of mountain wedges that constitute physical barriers to urban growth has tended to guide development into four corridors leading out of the city. This has resulted in a cross-shaped urban pattern instead of a concentric pattern that would probably occur in a city where growth is less influenced by topography.

The largest amount of urban growth outside of the incorporated areas has occurred adjacent to Asheville and Hendersonville. The growth around Asheville is occurring primarily along the major transportation routes into the city. In Hendersonville the growth has occurred in a circular fashion, with the most significant areas being located near the northwestern and southwestern boundaries of the city. Some urban growth outside the incorporated areas of Brevard and Black Mountain has also occurred but the magnitude of it has been much less than that experienced in the Asheville and Hendersonville vicinities.

Industrial development in the subregion has tended to concentrate around Asheville; however, some significant industrial development has occurred in or near the cities of Hendersonville and Brevard. In Asheville the most extensive industrial development has located near the French Broad River in areas where transportation facilities and relatively flat land were present. However, industrial and urban development has now utilized most of the larger developable sites near Asheville and much of the more recent industrial development has tended to spread outward from the city toward Black Mountain on the east and Hendersonville to the southeast. In both Hendersonville and Brevard industrial development has tended to take place outside of the corporated limits of the cities near available transportation facilities.

Farming and Gardening

Much of the bottom land and the less steep hillsides of the area are suitable for crops. Some crops, such as corn and vegetables cover large areas; others such as tobacco and gladioli are grown on relatively small acreages. Many residents also grow gardens for their personal use. In some sections, such as Henderson and Haywood Counties, apple orchards are a major commercial crop and represent the major source of income for dairy or beef cattle. Forage crop fields of hay or ensilage corn are usually associated with these cattle farms.

The major environmental impacts of farming involve soil disturbance, more rapid runoff of rain water, over-fertilization, and pesticide usages. Tilling of the lands, particularly on slopes, results in soil erosion during rains. Cattle grazing may cause soil erosion when over-grazing is allowed, but more generally cattle cause soil compaction, decreased soil absorption, and increased runoff during rains. Over-fertilization has resulted in increased enrichment of streams draining farm lands. This is particularly notable around barnyards where drainage is enriched from manure. Pesticides have given some problems, particularly when broad applications are made. Insecticides have been quite damaging to honey bees and undoubtedly to many native insects, including predators of insect pests, as well as the pests themselves. Herbicides sometimes drift in air and kill crops (particularly tomatoes). Little is known of the long term effects these pesticides may have on stream organisms or soil microorganisms in the area.

Timber Production

Probably over 95% of the area has been logged. The only remaining tracts of significant size of uncut timber remains in the Cheoah, Snowbird, and Great Smoky Mountains. Much of the area has been cut over from two to five times. Those areas which have remained forested are now managed in one of three ways: (1) selective cutting, (2) clear cutting or even-aged management, or (3) pure stand management. Selective cutting involves removal of certain species and size classes from a stand. This procedure is less disruptive of the system in that most of the standing trees remain and the lessened competition allows their more rapid growth. Clear cutting involves removal or slashing all standing trees so that the next generation of timber appears rather even-aged. Some areas are planted in one species, particularly white pine, where it has become unprofitable to use the land for agriculture. Some cut-over forests are also planted in white pine.

Timber production has less environmental impact than farming, but does involve soil erosion and perhaps other effects. Selective

cutting has the advantage of retaining some trees and allowing quicker recovery of the forest. It has the disadvantage of removal of the genetically superior stock trees if this is not considered at the outset. Clear cutting is most objectionable for aesthetic reasons, but also causes increased erosion because of more intensive timber removal. Pure stand timber production offers the possibility of greater specialization in production but should not be repeated for a given location. Pure stand production has the added disadvantage of increased susceptibility to disease.

Mining

The Southern Highlands Region, while having very diverse types of minerals and gems, has rather small deposits and thus has not been critically affected by mining. The greatest amount of impact on an areal basis has probably resulted from gravel quarries. Some areas have fairly large spoils (maybe up to 10 acres) as a result of other types of mining, but these are few. The chances of considerable extension in mining will increase during the next several decades as mineral resources are depleted in other regions of the world and it becomes more economical to mine less rich deposits.

Manufacturing has increased greatly during the past few decades. This is partially in response to availability of water, personnel, and other factors needed in industry. Most industry in the area is light industry, producing textile products, furniture, etc. These light industries have had little impact on the environment except for site excavation and minor interactions. A few heavy industries have located in the region and differ in that they have considerable impact on the ecosystems within the area. Such an impact can be exemplified by paper mills. Some of the impact in these particular mills is widespread, for the raw wood material is more valuable in the area and intensive harvesting has contributed to timber removal problems. The by-products of the pulping process were until recently burned or poured into streams. This has lowered air and water quality over much more area than the industrial location. Thermal inversions and consequent air pollutions have killed white pines and caused other damages; stream pollution has effectively removed game fishing. In general, more diverse industries have been discouraged by the heavy industries and less economic stability has resulted.

RECREATION DEVELOPMENT

The tourist industry is presently making some dramatic impacts upon the natural systems. While most of the impact is not

a local one, the effect is essentially that of urbanization of the countryside. More people are coming to the mountains to seek remote experiences, cool climates, etc. Some utilize back-road vehicles and are contributing to road and trail erosion problems and are discouraging many wild animals. Second home development has resulted in problems of erosion, sewage treatment, clean water supplies, road services, etc. As landowners along highways begin to realize the potential income from this tourist influx, strip-type development has added another dimension to the urban-type problems. Thus the tourist industry is having direct impact through urbanization problems and the direct displacement of wildlife ranges as man takes over the more rugged areas of second homesites. (Recreation Development will be discussed further and in detail in Chapter III of this report.)

Since the original timber removal from the region, coupled with the additional clearing for farms, roads, shopping centers, etc., flooding has become an increasing problem. In the 1930's through the 1950's a number of rather large impoundments were built to help curb this flooding and to provide hydroelectric power. These projects have not been as effective as the dam promoters had hoped and additional requests have been put forth. Some recent proposals have as their purpose the use by electric power companies as the primary objective. Presently there is strong public opposition to further removal of badly needed flat lands which would be inundated by impoundments.

Many of the impoundments in this region are of a smaller size, perhaps covering one-half to 20 acres. Farm ponds have long served as fish ponds, water for cattle, water for irrigation, etc. Many impoundments are now built as recreation lakes. The recreation lakes are extensively developed by land and home developers.

All impoundments effectively remove land from other uses. Particularly affected have been wetland bogs and swamps. Large impoundments have also destroyed whole valleys and the communities they contained. If impoundments are continued and effective below day streamflow is reduced, water shortages for downstream users will be the result.

Inter-Relationships of Natural and Manipulated Systems

Although most of the acreage of the Western counties is in forest or other natural systems, hardly any of the land is unaffected by man. Man's role can best be described as an agent of stress on the natural systems, with logging, farming, residential, industrial, and transportation uses of land tending to create silt and pollutant loads on streams, air pollution, and

problems in soil and plant-cover maintenance and regeneration.

Even operations which are intended to improve the environment tend to have the opposite effect. Flood-control impoundments are perceived as necessary only after destruction of forest cover and flood plain development generate a previously non-existent flooding problem; the dams themselves contribute to siltation during construction and interfere with streamflow and fish migration after construction, expecially when they are used for peak power generation. Fire control in forests, although useful in maintaining the ecosystem, is needed primarily because man sets fires.

With proper care, man can function in these ecosystems without disrupting them severely, but only if he is sensitive to the problems he creates. The soils in the mountains are frequently thin and the geologic substratum unstable. Valleys are a scarce and valuable resource, invariably associated with streams which are easier to damage than to restore. Hopefully, the further development of this land will be done with the sensitivity needed to keep man's adverse impact to a minimum.

Appendix B

INVENTORY OF NATURAL AREAS

INVENTORY OF NATURAL AREAS

The inventory of natural areas was undertaken to record those areas where "unique areas" could impose constraints on development through the deterioration of environmental quality. For the purpose of this study, a natural area was defined as:

> "any area containing an unusual or exemplary biological habitat, geologic feature, or hydrologic location."

To supplement and qualify the natural area definition, the following criteria were developed:

I. Physiographic and geologic natural areas

- A. Gorges--steep sloped creek or river valleys developed by processes of erosion, uplift, faulting, or combinations of these. For natural area classification, the slope and ridgetop visible from the vicinity of the stream should not be developed for residential, commercial, or continuous human use.
- B. Coves--upper headwater valleys of streams. The vegetation covering these should be continuous, either in climax or exemplary successional status and should represent the water gathering area for the stream system below.
- C. Cliffs and outcroppings--naturally exposed rock surfaces at least one acre in size (not of horizontal or map area for cliffs). Any area of smaller size should be considered on basis of other criteria, as containing rare plant species.
- D. Special mineral soils--as oliving, serpentive, limestone, etc. where specially adapted plants (and perhaps animals) occur or might be expected.
- E. Faults, dikes, etc. which are exposed and are important examples of geological processes.
- F. Ridgetops--undisturbed ridgetops of prominent mountains (i.e., those of highest altitude in the region, mountain range, or state), or those standing above the general plain of the region, as monadnocks, monoliths, etc.
- G. Unusual weathered rock formations--may be fanciful, as Caesars Head, or unusual as rock bridges, or Hangover Mt.
- H. Marshes--waterlogged soils with waterlevel near the surface--because of rarity now, all marshes of at least 1/2 acre or more should be considered as natural areas unless badly spoiled (polluted, drained, filled in, etc.).

I. Swamps--areas with the water level above the surface year-round; these are developing in many of the older lakes, which should be checked for their presence--importance is food and nesting grounds for animals, habitats for plants and should be counted if at least 1/2 acre in size.

J. Bogs--acidic, peaty soiled areas characterized by sphagnum moss and various plant species, as sedges, grasses, pitcher plants--any such location of 1/2 acre or more (less if containing habitat of a rare species).

K. Ponds and lagoons--when these are naturally formed, they are usually advanced in succession and represent important biological areas. All such areas with permanent standing water should be considered here unless severely damaged (drained, filled, polluted, etc.).

L. Thermal waters--as found at Hot Springs, N. C.

M. Scenic or Wild rivers--those so designated or considered for such status.

N. Water falls--minimum criteria should be: falls of at least 20 feet from top to bottom where water ends quick decent and at least 3 feet wide with depth of 3 inches (ankle deep). Exceptions might be those falls with unusual formations (as with roads, lakes, etc. disrupting their scenic aspects should be omitted.

O. Shoals--these are frequent throughout this area and are characterized by "white water". They are important to stream species, for they represent important aeration zones. Minimum criteria might be at least 1/4 mile length on small streams or brooks or 500 feet length and 20 feet width on larger streams.

II. Biological natural areas--many of these are a part of the above listed habitats and inseparable from them.

A. Wildlife management areas--usually game management areas, but also contain supporting wild species (food chain species) and should be considered natural areas.

B. Trout streams--either those stocked or those of native trout waters should be considered here.

C. Range limits or endemic populations--habitats con taining either the most northern or southern limit of a species population or an endemic population should be considered a natural area.

D. Record plants--locations of record tree size;

locations of unusual plant forms (as red form of cinnamon fern at Cole Mt.).

E. Virgin or primitive tracts--since these are so rare here, all such known sites should be designated natural areas.

F. Tracts selected for illustration of climax or successional vegetation--e.g. the Kelsey Tract, Highlands, contains 15 acres of climax Carolina hemlocks; or the Graveyards, where fire succession is slowly leading toward the spruce fir forest that was cut and burned in the 1920's.

III. Hydrologic natural areas--sites of unusually high precipitation, as the Highlands and Standing Indian Mt. areas. Justification of the natural area status would be such things as: (1) important water resource areas, (2) development and maintenance of certain vegetation types, and (3) interaction with soils, as the slide zones of Chunky Gal Mt. Coweeta Hydrologic Station is also located within this area.

IV. Other--be natural features not fitting the above groupings. For example, river sand bars or sandy ridges of noteworthy value.

INVENTORY OF NATURAL AREAS

Index to Principal Descriptive Qualities

1. Hilly
2. Flat
3. Lake
4. River
5. Stream
6. Waterfall
7. Forest or Woodland
8. Cultivated
9. Grassland or Pasture
10. Ownership: (1) public (2) private
11. Water/Fish and Wildlife
12. Forest/Fish and Wildlife
13. Physiographic Features
14. Geologic Features
15. Biologic Import
16. Hydrologic Significance
17. Other Natural Significance
18. Historical (private)
19. National Register Property
20. Archeological Site
21. Scenic/Wild River
22. Wilderness Area
23. Visual Amenity

24. Recreation

25. Recreation Travel

26. Unstable Soil Conditions

27. Flood Area

28. Faults

29. Seismic Activity Reported

GEORGIA

Special and Unique
SOUTHERN HIGHLANDS - Protective Environments County Dawson Sheet 1 of 1

Inventory Category	Site/Parcel Name	Acreage or Length in mi.	Principal descriptive qualities																										Quadrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
A-701	Amicalola Cr. (Scenic-Wild; part of)	13 M	x			x			x			2	x		x	x	x	3 x	x	4 x	x	x		P x		x	x	5 x	7 x	x			Juno
A-702 A	Etowah Scenic River (part of)	25 M	x			x			x	x	x	1/2	x		x	x		3 x	x	4 x				P x		x	x	6 x	7 x	x			Dawsonville, Coal Mtn., Matt
B-701	Amicalola Falls (in State Park)	25 a	x		x		x	x	x			1	x		x	x	x								x	x	x	x				Not mapped (1-24,000)
B-701 A	Amicalola Cr. (Part of C2-1) Scenic, Botanical Geological Sites		x				x	x	x			1/2	x		x	x			x	x					x	x	x	x				Juno
B-702	Cochran Falls	300 a	x				x	x	x			1/2	x		x	x			x	x					x	x	x					Juno
B-703	Mt. Oglethorpe (Env. Corr.) Part of		x				x	·					x		x	x		x			x				x	x	8 x					Tate (15°) Amicalola
C2-1	Amicalola Cr. - Etowah R. - Atl. Tract	19,000 a	x	x		x	x	x	x		x	1/2	x		x	x		x					P		x	x	x		x	x			Juno, Matt.
D-701	Steels Covered Br.	1 a					x					1/2	x		x	x			x	x					x	x	x						Juno
E-701	Village Site - Woodland and Miss.	25 a										2								x		x											Juno
E-702	Harwin Mound	20 a										2								x		x											Juno
E-703	Village Site-Woodland & Miss.	25 a										2								x		x											Dawsonville
E-704	Indian Mound & Village Site	20 a										2								x		x											Dawsonville
C-2 *	Part of Blue Ridge Corridor Wild Area	500 a	x				x	x	x			1/2	x	x	x	x	x	x							x	x							Amicolola

1=Public 2=Private 3=White Bass Spawn Area 4=Quality Water Supply Artery P=Potential State Designation 5=Class IV Rapids 6=Class II Rapids 7=Stream Channel Banks Stability 8=Scenic Drive and foottrail potential on crest 9=Primitive type

*Included in DNR Board Resolution

Special and Unique
SOUTHERN HIGHLANDS - Protective Environments County Fannin Sheet 1 of 1

Inventory Category	Site/Parcel Name	Acreage or Length in mi.	Principal descriptive qualities																											Quadrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
A-701	Jacks R. (Wild; N. Float; USFS-Pvt) (part of C1-1)	38.3 M	x			x	x	x	x	x	x	½	x		x	x		x					x	P	x	x	F	x	x			Cohutta Mtn. (15°, Hemp Top)
A-701 A	U. Conasauga R. (Wild: N Float: USFS-Pri part of C1-1)		x			x	x	x	x	x	x	½	x		x	x							x	P	x	x	F	x	x			Cohutta Mtn. (15°)
A-702	U. Toccoa & Tribs (W & S; class 1-2; USFS-of B-707 Princ. pt.		x			x	x		x	x	x	½	x		x	x							P		x	x						Wilscott Noontootla
A-702 A	L. Toccoa R. (Scenic; Class I)			x		x			x	x	x	2	x		x								P		x	x						Mineral Bluff
B-701	Brawley Mtn.-Pigeon Cr. Area	160 a	x				x		x			½																					Wilscott
B-702	Mill Creek Area		x				x		x			1																					Noontootla
B-703	Hemp Top Mtn. - Tumbling Cr. Area	2,000 a	x				x		x			1																					Noontootla
B-704	Big Stamp Fern Area	250 a	x						x			1																					Noontootla
B-705	Stover Creek		x				x		x			1																					Noontootla
B-706	Flat Top Mtn.		x						x			1																					?
B-707	Big Bend of U. Toccoa R. (part of A-702 A)					x			x	x	x	½	x	x									P		x	x	x					Noontootla, Wilscot
C1-1	Cohutta Mtns. (part)	30,000 a	x			x	x	x	x			1	x	x	x		x	x					P	P	x	p	f	x				Cohutta Mtn. (15° Hemp top)
C1-9 *	Appalachian Trail Prot. Zone	200 a	x				x		x			½		x	x									P	x		f	x				Noontootla
C2-1 *	Blue Ridge-Mill Cr.-Rock Cr.-Noontootly Cr.)	15,000 a	x				x		x			½	x	x	x		x								x		x	x	x			Noontootla
C2-2	Coopers Cr. Drainage Potential Wild Area	28,000 a	x				x		x			½	x	x	x		x								x		x	x	x			Mulky Gap

P=potential F=foot travel only ff=float & foot travel f=float p=primitive

*Included in DNR Board Resolution

Special and Unique
SOUTHERN HIGHLANDS - Protective Environments County Gilmer Sheet 1 of 1

Inventory Category	Site/Parcel Name	Acreage or Length in mi.	Principal descriptive qualities																									Quadrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
A-701	Coosawattee R. (Wild; Class 3-4; COE-Pvt)	9 M	x			x	3 x	x	x			2 1	x		x	x	4 x	5 x	6 x					7 x	x	x	x		x	9 x	x	x		Calhoun & Talking Rock
A-702	Ellijay R. (Scenic; Class 2; Pvt)	10 M	x			x			x		x	2	x		x	x	x		x				x		x	x			9 x	x	x		
A-703	Cartecay R. (Scenic; Class 3; Pvt)	10 M	x			x			x		x	2	x		x	x	x		x				x		x	x			9 x	x	x		Ellijay (un-named)
B-701 (8)*	Springer Mountain		x						x			1			x	x	x	x		x	x	x			x	x	x		9 x				Noontootla
C1-1	Part of Cohutta Wilderness	1,500 a	10 x			x	x	·	x			1	x		x	x	x	x	13 x	x						x	14 x	f	9 x				Cohutta Mtn.
C1-2	Rich Mountain High Peaks Wilderness	6,000 a	10 x				x		x			1	x		x	x		x	13 x	x						x	14 x	f	9 x				Tickanettly & Blue Ridge
C1-13	Coosawattee River Gorge Wilderness	6,000 a	10 x		11 x	x	x	x	x			1 2	x		x	x	x	x	x	x			x		x	x	14 f	9 x				Calhoun & Talking Rock
C2-1	Wild Area adjacent Cohutta's	7,000 a	10 x				x		x			1	x		x	x		x	13 x						x	x		x				
C2-2	Rich Mtn. Wild Area (WMA)	19,000 a	10 x				x		x			1 2	x		x	x		x	x						x	x		x				Tickanettly & Blue Ridge
C2-13	Coosawattee Wild Area (buffering the Coosawattee Wilderness Gorge) (about 9,000 in Pickens County)	15,000 a	x				x		x		x	2 1	x		x	x		x							x	x		x				Calhoun & Talking Rock
D-701 (30)	Springer Mtn. Part of B-701 (A.T. Terminus)	1 a	x						x			1													x	p	f	x				Noontootla

1=Public 2=Private 3=Mountaintown Creek - superlative 15 miles 4=serpentine, Fragile, scenic gorge 5=rock layer outcrops, cross bed to river 6=High Rainfall Zone/Quality Water supply artery 7=Class 3 & 4 rapids 8=float & foot travel along river, scenic drive at road road crossings & overlooks 9=rim of gorge, steep hill sides & channel banks when vegetation is disturbed. 10=severe slopes 11=part of Carters Reservoir 12=wildlife refuge potential on highly vulnerable lands 13=70"+rainfall-drainage/sedimentation control on vulnerable lands 14=primitive recreation F=foot travel only *=part of DNR Board-Resolution for Wild Blue Ridge Cor

Special and Unique
SOUTHERN HIGHLANDS - Protective Environments County Habersham Sheet 1 of 1

Inventory Category	Site/Parcel Name	Acreage or Length in mi.	Principal descriptive qualities																											Quadrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
A-701	Chattahoochee Scenic R. (Class III)	15.2 M	x	x		x			x	x	x	2	x		x	x	x	x			x	P	x	7 x		x	x	3 x	x	x		x		Helen Leaf
A-702	Soque R (Scenic-Rec; Pvt-USCS)	31.6 M	x	x		x			x	x	x	2 1	x		x	x						P				x	x	x	x	x				Clarkesville,Clarkesville NE
B-701	Tallulah Gorge	480 a	x		x	x		x	x			½	x		x	x	x	x		x				x		x	x	x	x			x		Tugaloo Lake
B-702	Smith Island	50 a	x			7 x			x	x	x	2	x		x	x			x					x		x			x	x	x	5 x		Clarkesville,Leaf
B-703	Buck Shoals Segment of Chatt. R.	200 a				7 x			x	x	x	2	x		x	x			x					x		x			x	x	x	5 x		Leaf, Clarkesville
C1-6 *	Tray Mountain Wilderness (Part of)	1,181 a	8 x						x			1	x		x	x	x	x	11 x					9 x		x	x	5 x	x					Tray Mtn, Lake B.
C2-1 *	Blue Ridge Wildland Corridor (Part of)	5,000 a	x				x		x			1	x		x	x	x	x	x					10	x	x		x	x					Tray Mtn, Lake B.
C2-2	Part of Panther CK (Potential Wild Area)	4,500 a	x			x		x	x			½	x		x	x	x								x	x		x						Tallulah Falls
E-701	Lanier Site-Woodland Village	20 a										2									x	A x												Helen

A-Woodland thru Prehistoric P - potential 1 - public ownership 2-private ownership
3-float & foot trail potential 4-maintain streambank stability 5-foottrail use
6-unique land form 7-class III rapid 8-severe slopes 9-wilderness 10-wild area
11-very high rainfall
*Part of DNR Board Resolution

Special and Unique
SOUTHERN HIGHLANDS - Protective Environments County Lumpkin Sheet 1 of 1

Inventory Category	Site/Parcel Name	Acreage or Length in mi.	Principal descriptive qualities																										Quadrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
A-701	Chestatee R. (Wild, Scenic; Class I - IV; Pvt)	35 M	x			x		x	x	x	x	2	x	x	x	x		x		x			x	x	x	x			x			Campbell Mtn., Dawsonville Murrayville.
A-702	Etowah R. (Scenic; Class I - II; Pvt)	15 M	x	x		x		x	x	x	x	2		x	x	x	x	x					x	x	x	x	x		x			Neels Gap, Dahlonega
B-701 (10)	Blood Mtn. (part of C1-3)	500 a	x						x			1/2		x	x	x				x		x			x	x	x					Neels Gap
B-702	Etowah River Falls	50 a	x			x	x	x	x			1/2	x	x	x		x	x		x			x		x							Dawsonville
B-703	White Bass Spawn Area	8 M				x						1/2	x				x															
B-704 (62)	Chestatee R. Falls/Tesnatee Co.	50 a	x			x		x	x			1/2					P		x						x	x	x					Dahlonega, Cleveland
B-705	Chestatee River/Coppernine	25 a	x			x			x			1/2				x	P		x	x					x	x	x					
B-706	Chestatee Nat. Bot. Scenic Area (Series of Small Areas along 35 m river corridor)	35 a	x	x		x	x																									Dahlonega
C1-3 *	Blood Mtn. Wilderness Area	4,670 a	x						x			1		x	x		x	x				x		P	x		F	x				Neels Gap
C1-4 *	Testnatee Wilderness Area	2,275 a	x				x		x			1		x	x		x	x						P	x		F	x				Cow Rock
C1-9 *	Appalachian Trail Prot. Corr.	1,500 a	x				x		x			1		x	x		x	x						P	x		F	x				Neels Gap,Suches, Nocntoothy
C2-1 *	Blue Ridge Wild Corridor (part of)	35,000	x						x			1/2	x	x	x		x								x	x		x				Suches, Neel's Gap, Cowrock
C2-2	Chestatee R. above Dahlonega (Wild Area)	5,000	x			x		x	x			2	x	x			x	x					P		x	x	FF		x			Dahlonega
C2-3	Etowah R. Corridor (Wild Area)	3,000	x			x		x	x			2	x	x			x	x					P		x	x	FF		x			Campbell Mtn. Dawsonville Coal Mtn. Matt
D-701	Auraria (Gold Rush Ghost Town)	20 a.								x		2									x											Dawsonville
D-702	Dahlonega Court House Museum	1 a										1									+x											Dahlonega
D-703	Price Memorial Hall	1 a										1									+x											Dahlonega
D-704	The Station Removal Fort	1 a										2									x											Dawsonville
D-705	Old Mill Site - Etowah R. Auraria	10										2								x	x											Dawsonville
D-706	Blackburn St. Park - Gold Site	200	x			x			x			2	x	x	x			x		x	x		P		x	x						Dawsonville
D-707	HIstoric Copper mine (Chestatee R.)	20	x			x			x			2	x	x		x		x		x	x		P		x	x						Dahlonega
E-701	Trahalyta's Grave	1 a	x						x			1	x	x								x			x	x	x					Neels Gap

P=potential F=Foot Travel f=Float *=on National Register 1-Public 2-Private
3-very steep slopes += part of DNR Board Resolution

SOUTHERN HIGHLANDS - Special and Unique Protective Environments County Murray Sheet 1 of 1

Inventory Category	Site/Parcel Name	Acreage or Length in mi.	Principal descriptive qualities 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	Quadrangle
A-701	W. Conasauga R. (Part C1-1)	26 M	x x x x x 1/2 x x x x B x x 9 x x x x x	Cohutta Mtn. (15°)
A-702	L. Conasauga R. (Scenic: Class 1-2; Put)	24 M	x x x x x 2 x x x 5 x x ? x 3 x x x	Dalton (15°) Calhoun (15°)
C1-1	Part of Cohutta Wilderness	8,000 a	8 x x x x x 1 x x x x B x x x 9 x 9 x x	Cohutta Mtn.
C2-1	WILD AREA: Very Steep Slope Area Adjoining Cohuttas including heads of Mill Creek and Holly Creek Basins	30,000 a	x x x x 1/2 x x x x x x 10 x x x x	Cohutta & Talking Rock
D-701	Chief Vann House	8 a	x x 1 P * x x x	Dalton
D-702	Cherokee Removal Fort (Ft. Gilmer)	1 a	x	Talking Rock
E-701	Fort Mountain - Stone Ruins	10 a	8 x x 1 x x x P x x x x	Ft. Mtn.

Footnotes: 1-Public 2-Private 3-Float & Foot Trails 4-Maintain stream bank stability 5-Cartersville Fault 6-Unique Land Form 7-Class 1-2 Rapids 8-Severe slopes 9-wilderness potential 10-Wildlife MGT. B-Botanical Rare Plants *=on National Register

Special and Unique
SOUTHERN HIGHLANDS - Protective Environments County Pickens Sheet 1 of 1

Inventory Category	Site/Parcel Name	Acreage or Length in mi.	Principal descriptive qualities																											Quadrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
B-701	Mount Oglethorpe - Ern. Corr. (part of) and Sharp Top	7 M	3 x						x		x	1/2		x	4 x		x			5 x					x	x	6 x	x				Tate (15°)
D-701 (9)	Taloney Carmel Mission	2 a										2								x		x			x	x	x					Talking Rock
D-702 (31)	Monument to Oglethorpe & past terminus of Appalachian Trail. (part of B-701)	1 a	x						x			1			x				x	x					x	x	x					Tate (15°)
E-701 (5)	Mound and Village Site	20 a										2								x		x										Tate
E-702 (6)	Petroglyphs on Mole Hill	1 a										2								x		x										Tate

Special and Unique

SOUTHERN HIGHLANDS - Protective Environments County Rabun Sheet 1 of 2

Inventory Category	Site/Parcel Name	Acreage or Length in mi.	Principal descriptive qualities																											Quadrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
A-701	Chatooga R. (Wild; Class 1-6;US S-Pvt)	42.4	x			x			x			1/2	x	x	x	x	x		x	x	x			x	x	x		x	x	x			Tamassee, Statalah, Rainy Mtn.
A-701 A	W. Fk Chattooga & Tribs (Wild-Scenic USFS-Pvt)	8.7	x				x	x	x			2/1	x	x	x		x						x		x	x		x				Satolah, Rabun Bald
A-702	Tallulah R. (Scenic; Class 2-3; Pvt-USFS)	20.4	x			x	x	x	x		x	1/2	x	x	x		x						x		x	x		x				Hightower Bald
A-703	Little Tenn. (Rec.-Scenic; Non Float, Pvt.)	7.5				x				x	x	2	x					x	x				x		x				x			Dillard
B-701	Rare Plant Colony (Part of Cedar Cliffs)	80 a	x					x				1		x	x		B							x	x	x	x					Satolah
B-702	Cedar Cliffs	300 a	x					x				1		x	x		B							x	x	x	x					Satolah
B-703	Glade Mtn.	80 a	x					x				1		x	x		B							x	x	x	x					Satolah
B-704	Mtn. Bog (at N. Carolina State Line	40 a		x											x	x	B							x	x	x	x					Rabun Bald
B-705A	Chestnut Ridge Bluff (N. of Rabun Bald)	40 a	x					x				1			x	x								x	x	x	x					Rabun Bald
B-705 B	Rabun Bald	440 a	x				x		x			1		x	x	x	B		x	x				x	x	x	x					Rabun Bald
B-706	Mountain Bog (south of Oakey Mtn.)	10 a		x			x		x					x	x	x	B							x	x	x	x					Clarkesville NE
B-707	Devil's Branch	280 a	x						x					x			B							x	x							Clarkesville NE
B-708	Three Forks - Holcomb, Overflow & Clear Creeks	2,400 a	x				x		x			1		x	x	x			x					x	x	x	x					Satolah
B-709	Tallulah Falls Railroad cut (ferns)	.4 M	x				x		x	x	x			x	x	x	x	B		x	x	x		x	x	x	x	x				Tallulah Falls
B-710	Wolf Creek & Rare Plant Locale	230 a																														Rainy Mtn.
B-711	Trail (connection rare plant locales - Buzzard Rock, Oripnose Mtn., Cedar Bluff, and Glade Mountain)	12 M	x						x			1		x	x	x	B		x					x	x	x	x					Satolah
B-712	Tallulah Gorge	2.1 M	x		x	x	x	x				1/2	x	x	x	x	B		x	x	x			x	x	x	x	x				Tallulah Falls
B-713	Reed Creek - Laurel Creek area	910 a	x				x		x					x	x		B		x						x	x	x	x				
B-714	Chattooga River - Corridor (Part of A-701 & E-12)		x			x			x					x	x	x	x		x	x	x			x	x	x	x	x	x			Tamassee, Satolah Rainy Mtn.
B-715	Old Quarry	2 a	x												x	x	B				x											Rabun Bald
B-716	Warwoman Dell - Historical Cherokee Area, Black Diamond R.R., & rare plants	75 a	x						x			1/2		x	x	x									x	x	x					Rabun Bald, Dillard
B-717	Sinking Mountain - Camp Creek Area																															See Chattooga Cor.
B-718	Licklog Creek	90 a	x						x			1/2		x	x	x	x								x	x	x					Rainy Mtn.
B-719	Breeding Bird Census Area	50 a	x				x		x							x	x	x	x					x	x	x	x					Rainy Mtn.
B-720	Trail (from Black Rock Mtn. State Park to Little Bald)	1.7 M	x						x			1/2		x	x		B								x	x	x					Dillard

B=Botanical 1=Public Ownership 2=Pvt. ownership 3=severe slopes 4=includes very steep slopes 5=micro area 6=about 6,000 acres special protection corridor authorized under Scenic River Act 7=Primitive/Wilderness Types 8=Foot travel to protect fragile features 9=Foot & Float Travel/Scenic Drive where existing black topped roads bisect the corridor 10=hazardous soils/high erodability (slope/soil/rainfall/vertical drop) to road cuts & vegetative removal P=potential B=Botanical 11=Critical Quality

Special and Unique
SOUTHERN HIGHLANDS - Protective Environments County Rabun Sheet 2 of 2

Inventory Category	Site/Parcel Name	Acreage or Length in mi.	Principal descriptive qualities																											Quadrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
B-721	Patterson Ridge - Patterson Gap Amphitheater	170 a	x				x		x					x	x	x	B								x	x	x					Dillard
B-722	Messer Creek Woods	170 a	x						x					x			B								x	x	x					Dillard
B-723	Cove (on Northwest slope of Bramlett Ridge)	290 a	x						x					x			B								x	x	x					Tray Mtn.
B-724	Sphagnum Bog	180 a		x					x					x	x	x	B								x	x	x					Tray Mtn.
B-725	Appalachian Trail (Fern Flats - Addis Gap to Dicks Gap)	390 a	x						x					x	x		B								x	x	x					Tray Mtn.
C-6*	Moccassin Creek Basin	5,108 a	3 x				x	x	x			1	x	x	x	x	x	11 x	x					P	x	7 x	8 x		x	x			Tray Mtn., Lake Burton
C-8*	Coleman River Basin	5,483 a	4 x				x	x	x		5 x	1/2	x	x	x	x	x	11 x	x					P	x	7 x	8 x		10 x	x			Hightower, Dillard
C-10	Three Forks - Overflow creek interstate natural area	5,000 a	4 x				x	x	x			1	x	x	x	x	x	11 x	x					P	x	7 x	8 x		10 x				Satolah, Highlands
C-11	Rock Mountain - Rabun Bald Area	5,659 a	4 x									1	x	x	x	x	x	11 x	x					P	x	7 x	8 x		10 x				Rabun Bald
C-12	Chattooga Wilderness River Corridor	10,000 a	3 x			x		x	x			1/2	x	x	x	x	x	11 x	x				6 x	P	x	7 x	9 x		10 x				Satolah, Tamassee, Rainy Mtn. Whitstone
C2-1*	Wildcat Creek & Dicks Creek Wild Area	10,000 a	3 x				x	x	x			1	x	x	x		x	11 x	x						x		x	x	x			Lake Burton, Tray Mtn.
C2-2*	Upper Tallulah River Wild Area	21,000 a	4 x			x		x	x	x	x	1/2	x	x	x	x	x	11 x	x						x	x		x	x			Hightower
C2-3	Warwoman - Blue Ridge - Tennessee Valley Divide Wild Area (includes C-11)	16,500 a	3 x				x	x				1	x	x	x	x		11 x	x						x	x		x	x			Rabun Bald
C2-4	Chattooga River Wild Area Corridor	20,000 a	3/4 x				x	x				1/2	x	x	x	x	x	11 x	x				12 x		x	x		x				Satolah, Tamassee, Rainy Mtn., Whitstone
D-701	Ellicott's Rock (Tri-state corner - part of C1-2)	2 a	3 x									1									P		x		x	x		x	x	x		Tamassee
D-702	Black Diamond R.R.																			x												Dillard Rabun Bald
D-703	Dillard House	2 a																														Dillard
E-701	Billy Goat Island - Effigy Mound																					x										

*=part of DNR Board Resolution/Recommendation

SOUTHERN HIGHLANDS - Special and Unique Protective Environments County Stephens Sheet 1 of 1

Inventory Category	Site/Parcel Name	Acreage or Length in mi.	Principal descriptive qualities																											Quadrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
A-701	Tugaloo R. (Scenic: Class 1 - ?: COE-Pvt)	5.0 M				x		x	x	x			x										P x		x	x					Tugaloo Lake, Avalon
A-702	Broad R. (Scenic: N. Float: Pvt)	5.5 M				x	x		x	x	x			x	x								P x		x						Toccoa
B-701	Panther Creek & Tributaries (part of C2-1)	800 a	x				x	x	x			2	x	x	x		x						P		x						Tugaloo Lake
B-702	Cedar Creek Canyon	300 a	x				x		x			1			x		x								x						Tugaloo Lake
B-703	Currahee Mountain - Lake Russell	250 a	x		x			x	x			1	x	x	x										x	x		x			Tugaloo Lake
C2-1	Panther Creek - Potential Wild Area (part of)	3,000 a	x				x	x	x			1/2	x	x	x		x							P	x						Tugaloo Lake
D-701	Traveler's Rest	5 a	x									1									* x										Toccoa
D-702	Prathers Covered Bridge	1 a										1									x										Tugaloo Lake
E-701	Rockwell Site-Woodland-Mississippian	20 a										1										x									Tugaloo Lake
E-702	Estatoee (18th Century Cherokee town)	20 a										1								x											Tugaloo Lake

*=on National Register

SOUTHERN HIGHLANDS - Special and Unique Protective Environments County Towns Sheet 1 of 1

Inventory Category	Site/Parcel Name	Acreage or Length in mi.	Principal descriptive qualities																											Quadrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
A-701	Hiawassee R. (Scenic; Class 1-?;Pvt-TVA)	10 M	x			x	x		x		x	2	x	x	x		x						x		x	x	6 x	x	x			Macedonia, Tray Mtn.
B-701	Dove - Botanical (Part of C-6)	700 a	x						x			1		x	x		x								x	p	f	x			Tray Mtn.
B-702	North Ravines of Tray Mtn. (part of C-6)	500 a	x						x			1		x	x								P	x	p	f	x			Tray Mtn.
B-703	McClure Gap Cove (Union)	80 a	x						x			1		x	x		x							x			x			Macedonia
B-704	Brasstown Cove and Ravine (part of C2-2)	500 a	x						x			1		x	x		x							x			x			Jacks Gap
B-705	Bat Caves - Hullander Top	25 a	x						x					x		x	x							x			x			Hiawassee
B-706	Brasstown-North Ridge - Beech Forest	1,000 a	x						x			1		x	x				x					x	x	x	x			Jacks Gap
B-707	Hightower Bald - Hightower Gap & Rich Knob (part of C1-1)	650 a	3 x			x	x		x			1/2	x	x	x		x						P	x	x	f	x			Hightower Bald
B-708	Tate Branch - Line Branch Area	1,500 a	x			x	x		x			1/2	x	x	x		x						P	x	p	f	x			Hightower Bald
B-709	High Shoals Ck/Carlien Creek	3,000 a	x				x	x	x				x	x				x							x	p	f	x			Tray Mtn.
C-7 *	Hightower Bald Wilderness (part of AT Prot. Corr.)	6,500 a	3 x						x			1	x	x	x	7 x	x						* P	x	p	f	x			Macedonia, Hightower
C-6 *	Part of Appalachian Trail Corridor & Tray Mtn. - Blue Ridge - Wilderness	4,381 a	3 x				x		x			1	x	x	x	7 x	x						* P	x	p	f	x			Tray Mtn.
C-5 *	Part of Chattahoochee Potential Wilderness	2,500 a	3 x				x		x			1	x	x	x	7 x	x						P	x	p	f	x			Tray Mtn., Jacks Gap
C2-1*	Around Hightower Bald Wilderness & along Blue Ridge Crest Wild Corridor Slopes-SW to the Union Co. line	15,000 a	4 x				x		x			1	x	x	x								* p	x	p	F	x			Macedonia, Hightower Tray
C2-2	Brasstown Bald/Wolfpin & Hiawassee Ridge	10,000 a	4 x				x		x			1	x	x	x								p	x	p	f	x			Hiawassee, Jacks Gap

1=Public Ownership 2=Private Ownership 3=Very Severe slopes 4=Severe slopes
5= Key Water Supply Artery from very high rainfall zone 6=primarily foot travel & Scenic Driver's View; Floating Limited to early spring. 7=massive rock outcrops

P=Potential f=foot travel only p=privitive recreation only

*=Included in DNR Board Resolution

SOUTHERN HIGHLANDS - Special and Unique Protective Environments County Union Sheet 1 of 1

Inventory Category	Site/Parcel Name	Acreage or Length in mi.	Principal descriptive qualities																											Quadrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
A-701	Nottley R. (Rec. - Nat.; Class 1-2: Pvt-TVA)	16.6 M	x			x			x	x	x	½		x	x	x		x					P		x	x	x	x	x			Coosa Bald
A-702	N. Toccoa R. (Scenic-Wild; Class 2-3; Pvt-USFS-TVA)	7.1 M	x		x	x			x	x	x	½		x	x	x		x					P		x	x	x	x	x			Suches
B-701 (43)	Cooper Creek Scenic Area	1,280 a	x				x		x			1	x	x	x	x	x	x	x					x		x						
B-702 (44)	Soshee Cove Scenic Area	215 a	x						x			1		x	x	x	x									x						Coosa Bald
B-703 (45)	Track Rock Gap	10 a	x						x			1		x	x	x	x		x			x										Wildcat
B-704 (46)	Lordmercy Cove	80 a	x						x			1		x	x	x	B									x						Cowrock
B-705 (47)	Hatchet Creek Cove	240 a	x						x			½		x	x	x	B		x							x						Cowrock
B-706 (48)	Richland Creek Cove	140 a	x						x			½		x	x	x	B		x							x						Neels Gap
B-707 (49)	Cove on NW, N, & NE sides of Coosa Bald	130 a	x						x			½		x	x	x	B		x							x						Coosa Bald
B-708	Lower Notteley River - Natural Area	500 a	x			x			x		x	2	x	x	x	x	x						x		x	x	x	x	x			
B-709 (50)	Slaughter Mtn. (part of C1-3)	600 a	x						x			½		x	x	x	B		x	x		x		x	x	x		x				Coosa Bald
B-710 (51)	Bog (Helton Creek)	1 a	x				x		x			½	x	x	x	x	B	x							x	x	x					Coosa Bald
B-711 (52)	Hawk Mtn.	135 a	x						x			½		x	x	x	B		x					x	x	x	x					Hawk Mtn.
B-712	Helton Creek Falls	25 a	x				x	x	x			½		x	x	x	x		x					x	x	x	x					Coosa Bald
C1-3 *	Blood Mtn. Wilderness Area (part of)	3,530 a	3 x						x			1	x	x	x	x	x			x		x		*	x	x		5 x				Neels Gap & Coosa Bald
C1-4	Part of Testnatee (potential wilderness)	954 a	x						x			1	x	x	x	x							P	x	x		5 x				Blairsville
C1-5	Part of Chattahoochee (potential wilderness)	3,500 a	x				x	x	x			1	x	x	x								P	x	x		5 x				Cowrock/Jacks Gap
C2-1 *	Blue Ridge Corridor - Wild Area (part of)	18,000 a	x				x	x	x			1	x	x	x										x	x		x				Suches, Neels Gap, Cowrock/ Jacks Gap
E-701 (14)	Blood Mtn. Archeological Area (part of C1-3)	28 a	x																			x										Neels Gap
E-702 (15)	Track Rock Gap Archeological Area	53 a	x																			x										

1=Public 2=Private P=potential
3=very steep slopes 4=very high rainfall
5=high erodability B=rare plant community

*included in DNR Board Resolution

Special and Unique
SOUTHERN HIGHLANDS - Protective Environments County White Sheet 1 of 1

Inventory Category	Site/Parcel Name	Acreage or Length in mi.	Principal descriptive qualities																											Quadrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
A-701	Chattahoochee Scenic R.	33.4 M	x	x		x			x	x	x	2	x	x	x	x	x			x	P	x	x		x	x	x	x	x	5 x		Helen/Clarkesville
A-701B	Dukes Creek (Part C2-1 & pvt.)	12. M	x				x	x	x		x	1/2	x	x	x	x	x			x	P	x	x		x	x	3 x	4 x	x			Cowrock/Helen
B-701	Mount Yonah (Scenic - Geologic)	200 a	6 x						x			1/2			x	x	x		x						x	x	x	x				Leaf
B-702	Smith Island (part of A-701)	50 a	x			7 x			x			2	x	x	x			x					x		x		x	x	x	5 x		Clarkesville
B-703	Buck Shoals Segment (Part of A-701)	200 a				7 x			x	x	x	2	x	x	x			x					x		x		x	x	x	5 x		Clarkesville
B-704	Anna Ruby Falls Scenic Area		x				x	x	x			1/2	x	x	x		x	x	x						x		x	x				Helen
B-705	Dukes Creek Falls (part of C2-1, part pvt.)	200 a	x				x	x	x			1	x	x	x	x	x	x						x	x		x	x				Cowrock
B-706	Low Gap Pond		x		x								x				x								x		x				Jacks Gap
B-707	Smith Creek & Rice Cabin Falls	5,146 a	x				x	x	x	x		1/2	x	x	x	x	x	x	x					x	x	x	x	x				Tray Mt. & Robertstown
C1-5 *	Proposed Chatt. Wilderness (part)	1,000 a	8 x									1	x	x	x		x	x	x	x				10 x	x	x	x	x				Jacks Gap
C1-6 *	Proposed Tray Mtn. Wilderness	403 a	8 x						x			1	x	x	x	x	x	x	x	x				10 x	x	x	x	x				Tray Mtn.
C2-1 *	Blue Ridge Wildland Corridor (part of)	20,000 a	8 x									1/2	x		x		x	x	x						x	x	x	x				Cowrock, Jacks Gap, Robertstown, Tray
D-701	Old White County Court House	1 a		x								1								x	* x				x		x					Helen
D-702	Stoval Covered Bridge	5 a		x		x				x		2								x	P				x							Clarkesville
D-703	Old Sautee Store	2 a		x					x			2								x	P				x	x						Helen
E-701	Indian Mound (17)	6 a		x								2								x	P	x			x							Cleveland
E-702	Rock Wall Remains on Yonah Mtn.	5 a	x									1				x				x	P	x			x							Leaf/Cleveland
E-703	Village Site on Chattahoochee	20 a		x					x			2									P	x	x		x							Helen
E-704	Nacoochee Mound	2 a		x							x	2							x		P	x	x		x				x			Helen

1=public ownership 2=pvt. ownership 3=float and foot trail potential 4=maintain stream bank stability 5=Brevard 6=unique land form 7=Class III rapid 8=severe slopes 9=wilderness potential 10=Wild Area B=Botanical *Part of DNR Board Resolution

NORTH CAROLINA

SOUTHERN HIGHLANDS STUDY - SPECIAL AND UNIQUE PROTECTIVE ENVIRONMENTS County: Transylvania Sheet 1 of 4

Inventory Category	Site/Parcel Name	Acreage or Length in mi.	Principal descriptive qualities																										Quandrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
B-700	The Pink Beds (Cradle of Forestry)	1020 Acres	X	X			X		X			1		X	X		1 X	2 X						X	X	X					Dunsmore Mt.
B-701	The Pink Beds (Cradle of Forestry)	1020	X	X			X		X			1		X	X		1 X	2 X						X	X	X					Cruso
B-702	High Falls	10	X			X		X	X			1		X	X		X								X	X					Pisgah Forest
B-703	The Pink Beds (Cradle of Forestry)	460	X				X		X			1		X	X		1 X		2 X						X	X	X				Pisgah Forest
B-704	South Fork Mills River Primative Area	7400	X			X	X	X	X			1		X	X		X		3 X						X	X					Pisgah Forest
B-705	Otter Hole	10	X			X						1		X	X		X		4 X						X	X					Pisgah Forest
B-706	Laughing Falls	15	X				X	X	X			2		X	X		X								X	X					Pisgah Forest
B-707	Blantyre Bog			X					X		X	2					1 X														Pisgah Forest
B-708	The Pink Beds (Cradle of Forestry)	3140	X	X			X		X			1		X	X		1 X		2 X						X	X	X				Shining Rock
B-709	Looking Glass Rock	1450	X				X	X	X			1		X	X	5 X	1 X								X	X	X				Shining Rock
B-710	Looking Glass Falls	30	X				X	X	X			1		X	X		1 X								X	X	X				Shining Rock
B-711	Slick Rock Falls	10	X				X	X				1		X	X		X								X	X					Shining Rock
B-712	Shuck Ridge Creek Falls	10	X				X	X				1																			Shining Rock
B-713	John Rock	480	X						X			1		X	X	X	X								6 X	X					Shining Rock
B-714	Shut-in Branch Cove	440	X				X		X			1		X	X		X								X	X					Shining Rock
B-715	Long Branch Swamps	60		X			X		X			1		X	X		X									X					Shining Rock
B-716	Cedar Rock Mountain and Cove		X				X		X			1		X	X		X									X					Shining Rock
B-717	Chestnut Bald-Silvermine Bald Cliffs	110	X						X			1		X	X	X	7 X								X	X	X				Sam Knob
B-718	Devils Courthouse	120	X						X			1		X	X	X	7 X		8 X						X	X	X				Sam Knob

1-rare plant species
2-special development, USFS
3-designated primative use, USFS
4-natural pool
5-large batholith
6-designated scenic area, USFS

Inventory Category	Site Parcel Name	Acreage or Length in mi.	Principal descriptive qualities																											Quandrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
B-719	Courthouse Falls	20. Acres	X				X	X				1			X		X								X	X						Sam Knob
B-720	Chestnut Creek Falls	15	X				X	X				1			X		X								X	X						Sam Knob
B-721	Bald Rock Cliffs	600	X									1/2		X	X		X								X	X						Lake Toxaway
B-722	Cold-Panthertail Mountains Cliffs	180	X									2		X	X		X								X	X						Lake Toxaway
B-723	Dismal Falls	40	X				X	X	X			1		X	X		X								X	X						Lake Toxaway
B-724	Ravenrock Cliffs	800	X				X	X	X			2		X	X		X								X	X						Lake Toxaway
B-725	Big Ridge Limestone Outcrops	110	X						X			1/2		X	X	X	X															Rosman
B-726	Bird Rock Falls	10	X				X	X	X			1/2		X	X		X								X	X	X					Rosman
B-727	Catheys Creek Falls	5	X				X	X	X			1/2		X	X		X								X	X						Rosman
B-728	Cedar Rock Mt. and Cove		X						X			1		X	X		X								X							Rosman
B-729	Glencannon Falls	30	X				X	X	X			2			X		X								X							Brevard
B-730	Maidenhair Falls	65	X				X	X	X			2			X		X								X							Brevard
B-731	Connestree Falls	55	X				X	X	X			2			X		X								X	X						Brevard
B-732	Walker Creek Bog	16		X			X					2			X		X															Brevard
B-733	Cedar Rock Outcrop	110	X									2			X	X	X		8 X						X							Brevard
B-734	Little River Bogs	50		X		X			X			2		X	X		X															Brevard
B-735	Little River Bogs	7		X		X			X			2			X		X															Standingstone Mt.
B-736	Bridal Veil Outcrops	120	X						X			2			X		X								X							Standingstone Mt.
B-737	Bridal Veil Falls	10	X			X			X	X		2			X		X								X	X						Standingstone Mt.

7-rare plant species group *Dupont Company
8-research site

Inventory Category	Site Parcel Name	Acreage or Length in mi.	Principal descriptive qualities																											Quandrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
B-738	High Falls	10 Acres	X			X		X	X			2			X		1 X								X	X						Standingstone Mt.
B-739	Triple and Hooker Falls	30	X			X		X	X			2		X	X		1 X								X	X						Standingstone Mt.
B-740	Grassy Creek Falls	6	X				X	X	X			2		X	X		X								X	X						Standingstone Mt.
B-741	Joanna Mountain Outcrops	200	X						X			2		X	X		X								X							Standingstone Mt.
B-742	Reasonover Flatwoods and Swamps	85		X			X		X			2			X		1 X															Standingstone Mt.
B-743	East Fork French Broad River Swamps	60		X			X				X	2			X		X															Table Rock
B-744	Toxaway River Gorge	50	X						X			2			X		X															Eastatoe Gap
B-745	Toxaway River Gorge	3650	X			X		X	X			2		X	X	1 X	8 X								X	X						Reid
B-746	Bearwallow Creek Gorge	2450	X				X	X	X			2		X	X	1 X	8 X								X	X						Reid
B-747	Lower Bearwallow Creek Falls	100	X				X	X	X			2		X	X	1 X	8 X								X	X						Reid
B-748	Bearwallow Limestone Outcrop	10	X				X	X	X			2			9 X	1 X	8 X								X	X						Reid
B-749	Toxaway Falls	15	X			X		X	X			2			X		X								X	X	X					Reid
B-750	Upper Bearwallow Creek Falls	20	X				X	X	X			2			X		X								X	X						Reid
B-751	Bearwallow Creek Swamps	95		X								2			X		X															Reid
B-752	Horsepasture River Gorge	2520	X			X		X	X			2			X		X	8 X							X	X						Reid
B-753	Windy Falls	100	X			X		X	X			2		X	X		1 X								X	X						Reid
B-754	Rainbow Fall	60	X			X		X	X			2		X	X		1 X								X							Reid
B-755	Lower Bearcamp Creek Falls	75	X				X	X	X			2		X	X		1 X		10 X						X							Reid
B-756	Upper Bearcamp Creek Falls	90	X				X	X	X			2		X	X		1 X		10 X						X							Reid

9-rare rock outcropping
10-research station

SOUTHERN HIGHLANDS STUDY - SPECIAL AND UNIQUE PROTECTIVE ENVIRONMENTS County: Transylvania Sheet 4 of 4

Inventory Category	Site/Parcel Name	Acreage or Length in mi.	Principal descriptive qualities																											Quandrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
B-757	Thompson River Gorge	2510 Acres	X					X	X			2		X	X	X	1 X		10 X						X	X						Reid
B-758	Thompson River Gorge	340	X						X			1/2		X	X		X								X	X						Cashiers
B-759	Thompson River Falls	5	X			X		X	X			1		X	X		X								X	X						Cashiers
B-760	Bohaynee Cascades	5	X				X	X	X			1		X	X		X								X	X						Cashiers
B-761	Whitewater Gorge	620	X			X		X	X			1		X	X		1 X								X	X						Cashiers
B-762	Upper Falls Whitewater River	20	X			X		X	X			1		X	X		1 X	X							X	X	X					Cashiers
B-763	Corbin Creek Falls	10	X				X	X	X			1		X	X		1 X								X	X	X					Cashiers

B-24

SOUTHERN HIGHLANDS STUDY - SPECIAL AND UNIQUE PROTECTIVE ENVIRONMENTS County: Macon Sheet 1 of 5

Inventory Category	Site/Parcel Name	Acreage or Length in mi.	Principal descriptive qualities																											Quandrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
B-700	Nantahala Gorge	2840 Acres	X			X		X	X			1/2		X	X	X	1 X								X	X	X			X	X	Hewitt
B-701	Camp Branch Falls	10	X				X	X	X			2			X		1 X								X							Hewitt
B-702	Queens Falls	10	X				X	X	X			1			X		X								X							Hewitt
B-703	Beechertown Island	3		X		X						2			X		X								X							Hewitt
B-704	Rowlin Limestone Outcrop	12	X						X			1/2			X	2 X	1 X															Hewitt
B-705	Cliff Ridge	640	X						X			1/2			X	X	3 X						X	X								Wesser
B-706	Loudermilk - Creek River Bluffs	25	X			X			X			1/2			X		X						X									Wesser
B-707	Sulfur Spring	10	X				X					2				X																Wesser
B-708	Rocky Bald	20	X								X	1			X		X						X	X								Wesser
B-709	Long Branch Cove	150	X				X		X			2			X		X															Alarka
B-710	Dean Islands	33		X		X			X			2		X	X		X								X							Alarka
B-711	Shallow Ford Island	3		X		X			X			2		X	X		X								X							Alarka
B-712	Beasley Creek Cove	2330	X				X		X			1/2		X	X		X	X										X				Greens Creek
B-713 9	Bryson Branch Falls and Cove	120	X				X		X			1/2		X	X	4 X	1 X															Glenville
B-714	Buck Creek Cove and Ridge	250	X				X	X	X			1		X	X	X	X								X							Glenville
B-715	Yellow Mountain	350	X						X			1			X		1 X								X	X						Glenville
B-716	Snowbird Mountain	95	X						X		X	2					X								X	X						Glenville
B-717	Rabbit Creek Swamp	50		X			X					2	X		X		X												X			Corbin Knob
B-718	Falls Branch Falls	20	X				X	X				2			X	X	X								X							Corbin Knob

1-rare plant species 3-rock outcrops
2-marble exposure 4-exposed limestone lens

SOUTHERN HIGHLANDS STUDY - SPECIAL AND UNIQUE PROTECTIVE ENVIRONMENTS County: Macon Sheet 2 of 5

Inventory Category	Site Parcel Name	Acreage or Length in mi.	Principal descriptive qualities																											Quandrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
B-719	Laurel Creek Falls (2 locations)	20 Acres	X				X	X				2			X	X	X								X							Corbin Knob
B-720	Ellijay Creek Falls	10	X				X	X				1			X	X	X								X							Corbin Knob
B-721	Franklin Swamp	22		X		X						2		X			X												X			Corbin Knob
B-722	Salem Island	1		X		X						2			X		X								X				X			Corbin Knob
B-723	Crows Branch Island	1		X		X						2			X		X								X				X			Corbin Knob
B-724	Burningtown Falls	10	X				X		X						X		X								X							Franklin
B-725	Rattlesnake Spring	5	X				X		X			1				X	5 X															Wayah Bald
B-726	Berties Falls	20	X				X	X	X			1			X		X								X		X					Wayah Bald
B-727	Wayah Bald (and Wine Spring Bald)	4650	X						X			1		X	X		1 X								X	X	X					Wayah Bald
B-728	Factory Branch Cove	235	X				X		X			1		X	X		1 X															Wayah Bald
B-729	Nantahala River Gorge	3150	X			X			X			1/2		X	X	X	1 X								X	X	X			X		Topton
B-730	Valley River Mountain	2360	X						X			1			X		X		6 X						X	X						Topton
B-731	Big Choga Bog	38	X				X		X			1					1 X															Topton
B-732	Standing Indian Mountain	3250	X						X			1		X	X		X								X	X						Rainbow Springs
B-733	White Oak Bottoms	105	X				X		X		X	1		X			X								X	X						Rainbow Springs
B-734	Rainbow Springs Marsh	210		X			X				X	2					7 X								X							Rainbow Springs
B-735	Runaway Knob - Slope and coves	540	X				X		X			1			X		8 X								X							Rainbow Springs
B-736	Moore Creek Swamps	10		X								2	X				X															Rainbow Springs
B-737	Factory Branch Cove	280	X				X		X			2		X	X		1 X															Rainbow Springs

5-rare animal species 7-rare species
6-ridge of prominent relief 8-rare species & specimen tree

SOUTHERN HIGHLANDS STUDY - SPECIAL AND UNIQUE PROTECTIVE ENVIRONMENTS County: Macon Sheet 3 of 5

Inventory Category	Site/Parcel Name	Acreage or Length in mi.	Principal descriptive qualities																											Quandrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
B-738	Betty Creek Cove	1580 Acres	X				X	X	X			1		X	X		X								X							Prentiss
B-739	Runaway Knob - slope and coves	155	X				X					1		X	X		I X															Prentiss
B-740	Mooney Branch Bogs	70		X			X		X			1					I X															Prentiss
B-741	Hurricane Creek Falls and Bogs	60	X	X			X	X	X			1		X	X		I X								X	X						Prentiss
B-742	Big Laurel Branch Falls	20	X				X	X	X			1		X	X		X								X	X						Prentiss
B-743	Hemp Patch Branch Falls	12	X				X	X	X			1		X	X		X								X	X						Prentiss
B-744	Bearpen Creek Falls	30	X				X	X	X			1		X	X		X								X	X						Prentiss
B-745	Standing Indian Mountain		X				X	X	X			1		X	X		X								X	X						Prentiss
B-746	Blue Valley	2725	X				X		X			1		X	X		X								X	X	X					Scaly Mountain
B-747	Scaly and Little Scaly Cliffs	780	X				X		X			I/2		X	X		X								X	X	X					Scaly Mt.
B-748	Piney Knob Fork and Fork Mt.	700	X				X	X	X			I/2		X	X		X								X	X						Scaly Mt.
B-749	Upper Middle Creek Falls	120	X				X	X	X			I/2			X		X								X	X						Scaly Mt.
B-750	Middle Creek Gorge (Falls included)	545	X				X	X	X			I/2		X	X		X								X	X						Scaly Mt.
B-751	Cullasaja River Gorge	2330	X			X		X	X			I/2		X	X	X	I X								X	X	X					Scaly Mt.
B-752	Crow Creek Falls	15	X				X	X				I/2			X		I X								X							Scaly Mt.
B-753	Cole Mountain	260	X						X			1			X	X	X		9 X						X	X						Highlands
B-754	Shortoff Mountain and Ridge	530	X						X			1			X		X								X	X						Highlands
B-755	Wrights Cove of Ammons Branch	50	X						X			10 2					I X								X							Highlands
B-756	Kelsey Tract - Primeval Hemlocks	230	X						X			1					II X								X	X						Highlands

9-cliffs on western slope 11-15 acres uncut Carolina Hemlocks, etc.
10-nature conservancy property

SOUTHERN HIGHLANDS STUDY - SPECIAL AND UNIQUE PROTECTIVE ENVIRONMENTS County: Macon Sheet 4 of 5

Inventory Category	Site Parcel Name	Acreage or Length in mi.	Principal descriptive qualities																											Quandrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
B-757	Highlands Falls	45 Acres	X				X	X	X			2			X		X								X	X						Highlands
B-758	Ravenel Lake	20		X	X							1/2					13 X															Highlands
B-759	Sunset Rock	15	X						X			2			X		X								X	X						Highlands
B-760	Fodderstach & Little Fodderstack Mt.	350	X						X			1/2			X		14 X								X							Highlands
B-761	Horse Cove Bog	30		X			X					2	X		X		15 X								X				X			Highlands
B-762	Edwards Creek Falls	15	X				X	X				1			X										X							Highlands
B-763	Slick Rock Outcrop	25	X						X			1			X		X		16 X						X	X						Highlands
B-764	Satulah Mountain	160	X						X			2			X		15 X		16 X						X							Highlands
B-765	Satulah Falls	15	X				X	X	X			2			X										X	X						Highlands
B-766	Blackrock Mountain	500	X						X			1/2			X	17 X	1 X								X							Highlands
B-767	Mirror Lake, Cullasaja Inlet	20		X	X							2	X				18 X								X	X			X			Highlands
B-768	Mirror Lake, Mill Creek Inlet	8		X	X							2	X				18 X								X	X			X			Highlands
A-700	Chattooga Wild River	2150	X			X			X			1/2		X	X	X	X						19 X		X	X						Highlands
B-769	Bridal Veil Falls	5	X				X	X				1			X		X								X		X					Highlands
B-770	Dry Falls	16	X			X						1		X	X	X	20 X								X		X					Highlands
B-771	Poplar Cove of Cullasaja River	25	X						X			1		X			X															Highlands
B-772	Cullasaja River Gorge	1660	X			X		X	X			1		X	X	X	20 X								X	X	X					Highlands
B-773	Blue Valley	1250	X			X	X	X				1/2		X	X		X								X	X						Highlands
B-774	Glen Falls	50	X			X	X					1			X		X								X	X						Highlands

12-Highlands Biological Station
13-Cove Hardwoods
14-Research, hydrarch succession
15-many rare & important species
16-research area, rare species
17-cliffs, unusual rock forms
18-wildlife numerous, hydrarch plant succession
19-Designated by U.S. Forest Service
20-very rare plant species

SOUTHERN HIGHLANDS STUDY - SPECIAL AND UNIQUE PROTECTIVE ENVIRONMENTS

County: Macon

Sheet 5 of 5

Inventory Category	Site Parcel Name	Acreage or Length in mi.	Principal descriptive qualities																										Quandrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
B-781	Hanging Rock	25 Acres	X						X			2			X		X								X	X						Highlands
A-701	Chattooga Wild River	510	X			X			X			1/2		X	X	X	X						19 X		X	X						Highlands
B-775	Ellicotts Rock	10	X			X						1		X	X										X	X						Highlands
B-776	Blue Valley	35	X				X		X			1		X											X	X						Satolah
B-777	Blue Valley	120	X				X		X			1		X											X	X						Rabun Bald
B-778	Standing Indian Mountain	35	X						X			1			X										X	X						Hightower Bald
B-779	Asa Cove	130	X				X		X			1		X	X		X								X							Dillard
B-780	Standing Indian Mountain	200	X				X		X			1		X	X		X								X							Dillard

B-29

SOUTHERN HIGHLANDS STUDY - SPECIAL AND UNIQUE PROTECTIVE ENVIRONMENTS County: Clay Sheet 1 of 2

Inventory Category	Site Parcel Name	Acreage or Length in mi.	Principal descriptive qualities																											Quandrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
B-700	Valley River Mountain	3200 Acres	X				X		X			1/2		X	X		X		X						X	X						Andrews
B-702	Tusquitee Mountains	800	X				X		X			2		X	X		X	X	X						X	X						Andrews
B-704	Tusquitee Mountains	1520	X						X			1		X	X		X		X						X	X						Topton
B-705	Tusquitee Bald	15	X						X			1			X		2 X								X	X						Topton
B-706	Matlock Bald	15	X						X			1			X		2 X								X	X						Topton
B-707	Potrock Bald	20	X						X			1			X		2 X								X	X						Topton
B-708	Valley River Mountains	320	X						X			1		X	X		X		1 X						X	X						Topton
B-709	Tallulah River Headwaters	5200	X				X	X	X			1/2		X	X		X	X							X	X						Rainbow Springs
B-710	Little Kitchens Ridge Ralls	10	X				X	X				1		X	X		X	X							X	X						Rainbow Springs
B-711	Chunky Gal Mountain	2500	X				X		X			1/2		X	X	X	1 X								X	X		X				Rainbow Springs
B-712	Standing Indian Mountain	100	X				X		X			1		X	X											X						Rainbow Springs
B-713	Falls Branch Cove	20	X				X		X			1			X			X							X	X						Rainbow Springs
B-714	Buck Creek Olivine Deposits	1400	X				X		X			1/2			X	X	1 X									X						Rainbow Springs
B-715	Pitch-pine, Prairie-grass Community	40	X						X		X	1/2				X	1 X															Rainbow Springs
B-716	Buck Creek Bogs	10		X			X		X		X	2					1 X												X			Rainbow Springs
B-717	Buck Creek Olivine Deposit	220	X						X			1		X	X	X	1 X									X						Shooting Creek
B-718	Perry Gap Hemlock Cove	160	X						X			1		X	X		X								X	X						Shooting Creek
B-719	Shooting Creek Bald (Boteler Peak)	3920	X						X					X	X		X								X	X						Shooting Creek
B-720	Tusquitee Mountains	3300	X				X		X			1/2		X	X		X		2 X						X	X						Shooting Creek

1-prominent ridge 3-rare plant species
2-grass/heath bald

SOUTHERN HIGHLANDS STUDY - SPECIAL AND UNIQUE PROTECTIVE ENVIRONMENTS County: Clay Sheet 2 of 2

Inventory Category	Site Parcel Name	Acreage or Length in mi.	Principal descriptive qualities																											Quandrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
B-721	Chunky Gal Mountain	55 Acres	X						X			1		X	X	X	1 X	X							X	X	X	X				Shooting Creek
B-722	Tusquitee Mountains	6800	X				X	X	X			1/2		X	X		X	X	1 X						X	X						Hayesville
B-723	Valley River Mountains	4000	X				X	X	X			1/2		X	X		X	X	2 X						X	X						Hayesville
B-724	Leatherwood Falls	10	X				X	X	X			1			X										X	X						Hayesville
B-725	Penland Cove Island	7		X		X						2			X		X		1 X						X		X					Peachtree
B-726	Valley Mountains	1920	X				X		X			1/2			X		X		1 X						X	X						Peachtree
B-727	Cherry Cove	450	X				X		X			1		X	X		X															Macedona
B-728	Burnt Cabin-Grapevine Coves	270	X				X		X			1		X	X		X															Macedona
B-732	Hightower Bald	290	X				X		X			1													X	X						Macedona
B-729	Fall Branch Cove	110	X				X	X	X			1		X	X		X								X	X						Hightower Bald
B-730	Tallulah River Headwaters	1500	X			X		X	X			1/2		X	X		X								X	X						Hightower Bald
B-731	Standing Indian Mountain	380	X				X		X			1		X	X		X								X	X						Hightower Bald
B-733	Hightower Bald	160	X				X					1		X	X		X								X	X						Hightower Bald

4-includes Rockhouse Creek Gorge
5-river island

SOUTHERN HIGHLANDS STUDY - SPECIAL AND UNIQUE PROTECTIVE ENVIRONMENTS County: Graham Sheet 1 of 2

Inventory Category	Site/Parcel Name	Acreage or Length in mi.	Principal descriptive qualities																											Quandrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
C-700	Slick Rock Wild Area	2280 Acres	X				X					X		X	X		X							1 X	X							White Oak Flats
B-700	Little Tennessee River Bluffs	1470	X			X			X			1/2		X	X	X	X								X	X	X					Tapaco
B-701	Big Fat Branch Cove	100	X				X		X			1		X	X		2 X								X	X						Tapaco
B-702	Ike Branch Cove	50	X				X		X			2			X		3 X									X						Tapaco
B-703	Lower Falls and Bluffs, Slick Rock Creek	200	X				X	X	X			1		X	X		X								X	X						Tapaco
C-701	Slick Rock Creek Wild Area	4780	X				X	X	X			1/2		X	X		X							1 X	X	X						Tapaco
C-702	Joyce Kilmer Memorial Forest	920	X						X			1		X	X		X							4 X	X	X						Tapaco
B-704	South Bluff Little Tennessee River	740	X			X			X			1/2		X	X		X								X	X						Fontana Dam
B-705	Jack Shute Branch Cove	50	X				X	X				1		X	X		X								X	X						Fontana Dam
B-706	Lewellyn Cove	270	X				X		X			1			X		X								X	X						Fontana Dam
B-707	High Top North Slope	60	X						X			1		X	X		2 X								X	X						Fontana Dam
B-708	Wolf Creek Swamps	25		X			X				X	2			X		5 X															Tuskeegee
B-709	The Jump-Up	25	X						X			2			X	X	X								X	X						Hewitt
B-710	Tuiula Creek Swamp	70	X				X				X	1			X		X															Hewitt
B-711	Nantahala Gorge	530	X						X			1/2			X	6 X	7 X								X		X			X	X	Hewitt
B-712	Rowlin Simestone Outcrop	10	X						X			2				X	7 X															Hewitt
B-713	Walker Field	10	X								X	1					8 X															Robbinsville
B-714	Tatham Gap	50	X				X		X			1					9 X															Robbinsville
B-715	Long Creek Cove	40	X				X		X			1					9 X															Robbinsville

1-under consideration, USFS
2-rare tree species
3-important cove species
4-Virgin timber, considered for National Wilderness, USFS
5-rare animal species
6-Murphy fault; slate, marble
7-rare species
8-successional vegetation
9-rare plant species

SOUTHERN HIGHLANDS STUDY - SPECIAL AND UNIQUE PROTECTIVE ENVIRONMENTS

County: Graham

Sheet 2 of 2

Inventory Category	Site/Parcel Name	Acreage or Length in mi.	Principal descriptive qualities																											Quandrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
C-704	Snowbird Creek Wild Area	8380 Acres	X				X	X	X			1	X		X		X							1 X	X	X					Santeetlah Creek
B-716	Big Falls	14	X				X	X	X			1	X		X		X								X	X					Santeetlah Creek
B-717	Sassafrass Falls	10	X				X	X	X			1	X		X		X								X	X					Santeetlah Creek
B-718	Middle Falls	5	X				X	X	X			1	X		X		X								X	X					Santeetlah Creek
B-719	Upper Falls	8	X				X	X				1	X		X		X								X	X					Santeetlah Creek
C-705	Indian Creek Wild Area	1300	X				X					1			X	X	X							4 X	X	X					Santeetlah Creek
C-706	Santeetlah Creek Wild Area	360	X				X					1			X	X	X							10 X	X	X					Santeetlah Creek
C-707	Joyce Kilmer Memorial Forest	2760	X				X		X			1			X	X	X							11 X	X	X					Santeetlah Creek
C-708	Slick Rock Wilderness Area	50	X							X		1			X	X	X							11 X	X	X					Santeetlah Creek
B-720	Wright Creek Island	5	X				X			X		1			X	X	X								X	X			X		Santeetlah Creek
B-721	Cedar Cove Islands	15		X			X			X		1			X	X	X								X	X			X		Santeetlah Creek
B-722	Hooper Cove Island	8		X			X			X		1			X	X	X								X	X			X		Santeetlah Creek
B-723	Joyce Kilmer Island	3	X				X			X		1			X	X	X								X	X			X		Santeetlah Creek
C-709	Santeetlah Creek Wild Area	230	X				X			X		1			X	X	X							1 X	X	X					Big Junction
C-710	Sanowbird Creek Wild Area	2150	X				X			X		1			X	X	X							1 X	X	X					Big Junction
C-711	Slick Rock Creek Wilderness Area	80	X				X			X		1			X	X	X							1 X	X	X					Big Junction
C-712	Snowbird Creek Wild Area	17	X							X		1			X	X	X							1 X	X	X					McDaniel Bald
C-713	Snowbird Creek Wild Area	460	X							X		1			X	X	X							1 X	X	X					Marble

10-under consideration as Wild area, USFS 11-considered for National Wilderness, USFS

SOUTHERN HIGHLANDS STUDY - SPECIAL AND UNIQUE PROTECTIVE ENVIRONMENTS County: Buncombe Sheet 1 of 3

Inventory Category	Site Parcel Name	Acreage or Length in mi.	Principal descriptive qualities																									Quandrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
B-700	Cedar Cliff and Sheep Wallow Knobs	300 Acres	X						X			1		X	X		X								X	X					Barnardsville
B-701	Dillingham Island	5		X			X		X			2		X	X		X								X	X			X		Barnardsville
B-702	Ogle Meadows	40	X						X			2			X		X								X						Mt. Mitchell
B-703	North Fork Ivy Creek Cove	110	X				X		X			1			X		1 X								X	X					Mt. Mitchell
B-704	Walker Falls	60	X				X	X	X			1			X		X								X	X					Mt. Mitchell
B-705	Big Butt Ridge	650	X						X			1			X		X		2 X						X	X					Mt. Mitchell
B-706	Montreat Watershed	1120	X				X		X			2			X		X								X						Montreat
B-707	Pinnacle Mountain	125	X						X			1/2			X		X							X	X	X					Montreat
B-708	Craggy Dome and Pinnacle	120	X						X			1			X		X							X	X	X					Montreat
B-709	Waterfall Scenic Area	240	X				X		X			1			X		X							3 X	X	X					Montreat
B-710	Waterfall Scenic Area	920	X				X		X			1			X		X								3 X	X	X				Craggy Pinnacle
B-711	Craggy Pinnacle and Gardens	360	X						X			1			X		X								X	X	X				Craggy Pinnacle
B-712	Beetree Gap	40	X						X			1			X		1 X								X		X				Craggy Pinnacle
B-713	Eagle Rock Cove	220	X						X			1			X		X								X	X	X				Craggy Pinnacle
B-714	Bull Gap	70	X						X			1			X		1 X								X		X				Craggy Pinnacle
B-715	French Broad River Bluffs	1160	X			X			X	X	X	2			X		X								X	X					Weaverville
B-716	Flat Creek Gorge	120	X				X		X	X	X	2			X		X								X	X					Weaverville
B-717	Reems Creek Gorge	100	X				X	X	X	X	X	2			X		X								X	X					Weaverville
B-718	Reems Creek Falls	10	X				X	X	X			2			X		X								X	X					Weaverville

1-rare plant species 3-scenic area designated by USFS
2-prominent ridge *Blue Ridge Parkway

Inventory Category	Site Parcel Name	Acreage or Length in mi.	Principal descriptive qualities																												Quandrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
B-719	French Broad River Bluffs	430 Acres	X			X			X	X	X	2		X	X		X								X	X						Leicester
B-720	Sandymush Creek Gorge	160	X				X		X	X	X	2		X	X		X								X	X						Leicester
B-721	Turkey Creek Gorge	290	X				X		X	X	X	2		X	X		X								X	X						Leicester
B-722	Hanlon Mountain	700	X						X		X	2		X	X		X		X[2]						X	X						Leicester
B-723	Rockyface Mountain	100	X						X			2		X	X		X								X	X						Canton
B-724	Murphy Junction Shoals and Bluff	50	X			X						2			X		X								X	X			X			Asheville
B-725	West Asheville River Bluffs	35	X									2			X		X								X	X						Asheville
B-726	Swannanoa River Flood Plain (mouth)	20		X		X			X			2			X		X[4]												X			Asheville
B-727	Upper Swannanoa River Flood Plain	25		X		X			X			2			X		X[4]												X			Asheville
B-728	Piney - Cisco Mountains	385	X						X			2			X		X		X[2]						X	X						Asheville
B-729	Rhododendron Park Bluffs	45	X						X			2			X		X								X	X						Asheville
B-730	Biltmore House Shoals	50				X						2			X		X								X							Asheville
B-731	Biltmore House Bluffs	200	X						X			2			X		X								X							Asheville
B-732	Vanderbilt Shoals	15				X						2			X		X								X				X			Asheville
B-733	Biltmore Estate Shoals	20				X						2			X		X								X				X			Asheville
B-734	Biltmore Estate Bluffs	40	X						X			2			X		X								X							Asheville
B-735	Bent Creek Shoals	15				X						2			X		X								X				X			Asheville
B-736	Cedar Cliff and Little Cedar Mt.	730	X				X		X			2			X	X[5]	X[6]								X	X						Oteen
B-737	The Glade	10	X						X			½		X	X		X									X						Black Mt.

4-rare tree species 6-very rare plant species
5-limestones

SOUTHERN HIGHLANDS STUDY - SPECIAL AND UNIQUE PROTECTIVE ENVIRONMENTS County: Buncombe Sheet 3 of 3

Inventory Category	Site Parcel Name	Acreage or Length in mi.	Principal descriptive qualities																											Quandrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
B-738	Hickorynut Gap and Ferguson Peak	125 Acres	X						X			2			X		X							X	X	X					Bat Cave
B-739	Bearwallow Mountain	15	X						X			2			X		X							X	X						Bat Cave
B-740	Bearwallow Mt. Cliffs	130	X						X			2		X	X		X							X	X						Fruitland
B-741	Arden Swamp	18	X				X					2			X		X														Skyland
B-742	Long Shoals	30				X						2			X		X							X				X			Skyland
B-743	Long Shoals Swamp	20		X								1/2			X		1 X							X				X			Skyland
B-744	Sandy Bottom	40		X			X					2			X		7 X											X			Skyland

7-flood plain community **N. C. Highway right-of-way

B-36

SOUTHERN HIGHLANDS STUDY - SPECIAL AND UNIQUE PROTECTIVE ENVIRONMENTS County: Swain Sheet 1 of 3

Inventory Category	Site Parcel Name	Acreage or Length in mi.	Principal descriptive qualities																											Quandrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
B-700	Charlies Bunion	15 Acres	X						X		X	1			X		1 X								X	X						Mt. Guyot
B-701	Raven Fork Gorges	2480	X						X			1			X		X								X	X						Mt. Guyot
B-702	Raven Fork Gorge	550	X				X		X			1			X		X								X	X						Luftee Knob
B-703	Flat Creek Falls	15	X				X	X	X			1		X	X		X								X	X						Bunches Bald
B-704	Raven Fork Gorge	360	X				X		X			1		X	X		X								X	X						Bunches Bald
B-705	Raven Fork Gorge	1900	X			X			X			1			X		X								X	X						Smokemont
B-706	Mingo Falls	10	X				X	X	X			2			X		X								X	X						Smokemont
B-707	Little Creek Falls	10	X				X	X	X			1			X		X								X	X						Smokemont
B-708	Indian Gap - Heath Bald	25	X									1			X		X								X		X					Clingmans Dome
B-709	Rocky Ridge Heath Balds	175	X									1			X		X								X		X					Clingmans Dome
B-710	Clingmans Dome	60	X						X			1			X		X								X	X	X					Clingmans Dome
B-711	Andrews Bald	25	X						X			1			X		2 X								X	X						Clingmans Dome
B-712	Mt. Buckley	210	X						X		X	1			X		3 X								X	X						Silers Bald
B-713	Silers Bald	40	X						X		X	1			X		3 X								X	X						Silers Bald
B-714	Hazel Creek Cascades	15	X				X	X	X			1			X		X								X	X						Silers Bald
B-715	Spence Field	40	X						X			1			X		4 X								X	X						Thunderhead
B-716	Gregory Bald	10	X						X			1			X		5 X								X	X						Cades Cove
B-717	Parson Bald	10	X						X			1			X		2 X								X	X						Calderwood
B-718	Little Tennessee River Bluffs	580	X			X			X			1/2			X	X	X								X	X	X					Tapoca

1-successional vegetation 3-grass/heath succession 5-heath (azalea hybrids)/grass bald **Cherokee Indian Reservation
2-grass heath bald 4-heath (azalea)/grass bald *Great Smoky Mountains Nat'l. Park

SOUTHERN HIGHLANDS STUDY - SPECIAL AND UNIQUE PROTECTIVE ENVIRONMENTS County: Swain Sheet 2 of 3

Inventory Category	Site Parcel Name	Acreage or Length in mi.	Principal descriptive qualities																											Quandrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
B-719	Upper Flats Cover	120 Acres	X				X					1		X	X		6 X									X						Fontana Dam
B-720	Evans Knob Bluffs	40	X			X			X			1			X		X								X	X						Noland Creek
B-721	Goldmine Branch Bluffs	40	X			X			X			1			X		X								X	X						Noland Creek
B-722	Flat Branch Bluffs	50	X			X			X			1			X		X								X	X						Noland Creek
B-723	Jenkins Branch Bluffs	60	X			X			X			1			X		X								X	X						Noland Creek
B-724	Milksick Cove and Bluff	80	X						X			2			X		X															Bryson City
B-725	Baines Mountain - Steep slope	200	X						X			2			X		X								X							Bryson City
B-726	Rocky Face Mountain - Outcrops	140	X						X			2			X		7 X								X							Bryson City
B-727	Fry Mountain	50	X								X	2			X		X								X							Bryson City
B-728	Tom Branch Falls	10	X				X	X	X			1			X		X								X	X						Bryson City
B-729	Indian Creek Falls	10	X				X	X	X			1			X		X								X	X						Bryson City
B-730	Hillside Islands	5		X		X			X			2			X		8 X								X							Bryson City
B-731	Bryson City Island	7		X		X			X			2			X		8 X								X							Bryson City
B-732	Bryson City Shoals	1.4 miles				X						2			X		X	X							X	X						Bryson City
B-733	Governors Island	12 Acres		X		X			X			2			X		X								X	X						Bryson City
B-734	Ela Island	7		X		X			X			2			X		X								X	X						Bryson City
B-735	Cedar Cliff	110	X						X			1			X		X								X	X						Whittier
B-736	Whittier Islands	10		X		X						2			X		X								X							Whittier
B-737	Big Laurel Creek Flats	200		X					X	X		2			X		X															Whittier

6-rare tree species 8-successional river woodland vegetation ***State Forestry Tower
7-rare plant species

SOUTHERN HIGHLANDS STUDY - SPECIAL AND UNIQUE PROTECTIVE ENVIRONMENTS County: Swain Sheet 3 of 3

Inventory Category	Site Parcel Name	Acreage or Length in mi.	Principal descriptive qualities																											Quandrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
B-738	Little Tennessee River Bluffs	210 Acres	X			X			X			1/2			X		X								X							Wesser
B-739	Rattlesnake Creek Falls	15	X				X	X	X			2			X		X								X							Wesser
B-740	Windy Gap Islands	22		X		X			X			2			X		9 X								X							Wesser
B-741	Horseshoe Bends of Little Tenn. River	1540	X			X			X	X		1/2			X	10 X	X								X	X	X					Wesser
B-742	The Narrows - River Bluffs	180	X			X			X			2			X		X								X	X	X					Wesser
B-743	Wesser Quartzite Bluffs	20	X						X			1			X	11 X	7 X								X		X			X		Wesser
B=744	Wesser Swamp	20		X			X					2					12 X												X			Wesser
B-745	Nantahala Gorge	2300	X			X		X	X			1/2			X										X	X	X			X	X	Wesser
B-746	Bird Falls	10	X				X	X				2			X		X								X		X					Wesser
B-747	The Jump-up	70	X						X			2			X	X	X								X	X						Hewitt
B-748	Nantahala Gorge	6610	X			X			X			1/2			X	X	7 X								X	X	X			X	X	Hewitt
B-749	Blowing Spring Marble Outcrops	175	X						X			1			X	13 X	7 X								X	X	X			X	X	Hewitt
B-750	Hewitt Outcrops	120	X						X			2			X	14 X	7 X								X		X			X	X	Hewitt
B-751	Nantahala Islands	10		X		X			X			2			X		X								X	X	X		X			Hewitt

9-successional flood plain begetation 11-well developed quartzite 13-undisturbed marble
10-well developed entrenchedmeanders 12-animal life 14-disturbed minerals

SOUTHERN HIGHLANDS STUDY - SPECIAL AND UNIQUE PROTECTIVE ENVIRONMENTS County: Madison Sheet 1 of 2

Inventory Category	Site Parcel Name	Acreage or Length in mi.	Principal descriptive qualities																											Quandrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
B-700	Whiterock Cliff	50 Acres	X						X			1			X		X								X	X						Greystone
B-701	Baxter Cliff	30	X						X			1			X		X								X	X						Greystone
B-702	Big Butt Grass Gald	75	X						X		X	2			X		X								X	X						Greystone
B-703	Big Laurel Gorge	1310	X				X		X	X	X	2		X	X		X								X	X						White Rock
B-704	Big Laurel Gorge	1520	X				X		X	X	X	1/2		X	X		X								X	X						Hot Springs
B-705	Runion Islands	20		X		X			X			2		X	X		X								X	X			X			Hot Springs
B-706	Mountain Islands	15	X	X					X			2		X	X		X								X	X			X			Hot Springs
B-707	Deep Water Bridge Bluff	35	X						X			1/2			X	X	X								X							Hot Springs
B-708	Deep Water Bridge Island	15		X		X			X			2		X	X		X								X	X			X			Hot Springs
B-709	Hot Springs	2		X						X		2				1 X										X						Hot Springs
B-710	Bubbling Springs	2		X							X	2				1 X																Hot Springs
B-711	Stokely Hollow and Ridge	80	X				X		X	X		2			X	2 X	3 X								X							Hot Springs
B-712	Trent and Cascade Branch Ridge	400	X				X		X	X		1/2			X	4 X	5 X								X	X						Hot Springs
B-713	Bartley Island	50		X		X			X			2			X		X								X	X			X			Hot Springs
B-714	Cane Island	15		X		X			X			2			X		5 X								X	X			X			Hot Springs
B-715	Paint Rock Cove	40	X				X		X			2			X	X	5 X															Paint Rock
B-716	Huff Islands	50		X		X			X			2			X		X								X	X			X			Paint Rock
B-717	Bluff Mountain Cove	400	X				X		X			1			X		X								X	X						Lemon Gap
B-718	Max Patch Mountain	150	X								X	2			X		X								X							Lemon Gap

1-thermal spring 3-rare plant species, 4-limestone outcroppings
2-limestone special plant community 5-rare plant species

SOUTHERN HIGHLANDS STUDY - SPECIAL AND UNIQUE PROTECTIVE ENVIRONMENTS County: Madison Sheet 2 of 2

Inventory Category	Site Parcel Name	Acreage or Length in mi.	Principal descriptive qualities																											Quandrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
B-719	Spring Creek Gorge	3000 Acres	X				X		X			1/2			X	X	X		6 X						X	X	X					Spring Creek
B-720	Treadway Shoals	25				X						2													X	X						Spring Creek
B-721	Slaty Knob Shoals	100				X						2													X	X						Spring Creek
B-722	Lower French Broad River Bluffs	1000	X			X			X	X		2			X		X								X	X						Marshall
B-723	French Broad River Bluffs	680	X			X			X	X		2			X		X								X	X						Marshall
B-724	French Broad River Bluffs	210	X				X		X	X		2			X		X								X	X						Leicester
B-725	Sandy Mush Gorge	130	X				X		X	X		2			X		X								X	X						Leicester

B-41

SOUTHERN HIGHLANDS STUDY - SPECIAL AND UNIQUE PROTECTIVE ENVIRONMENTS County: Cherokee Sheet 1 of 2

Inventory Category	Site/Parcel Name	Acreage or Length in mi.	Principal descriptive qualities																											Quandrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
B-700	Tellico River Headwaters	4620 Acres	X			X		X	X			2			X		X		1 X						X	X						Big Junction
B-701	Tatham Gap	60	X						X			1					2 X									X					Robbinsville
B-702	Walker Field	15	X								X	1/2			X		3 X								X	X						Robbinsville
B-703	Nantahala Gorge	30	X						X			2			X	X	X								X	X	X			X	X	Hewitt
B-704	Nantahala Gorge	100	X						X			2			X	X	X								X	X	X			X	X	Topton
B-705	Catstair Branch Falls	30	X				X	X	X			1			X		X								X	X						Topton
B-706	Valley River Mountains	848	X				X	X	X			1/2			X		X		4 X						X	X						Topton
B-707	Chestnut Flats Cove	70	X				X		X			2		X	X		X								X							Andrews
B-708	Valley River Mountains	5740	X				X		X			1/2		X	X		X		4 X						X	X						Andrews
B-709	Welch Mill Creek Cove	50	X				X		X			2		X	X	X	5 X															Marble
B-710	Marble Mine	10	X				X					2				X	6 X															Marble
B-711	Newton Island	5		X		X						2			X		X		7 X						X				X			Marble
B-712	Colvard Creek Island	15		X		X						2			X		X		7 X						X				X			Marble
B-713	Tellico River Headwaters	2150	X			X			X			2		X	X		X		1 X						X	X						McDaniel Bald
B-714	Beech Creek Seed Orchard	1525	X						X			1					X		8 X													Persimmon Creek
B-715	Beech Creek Seed Orchard	275	X						X			1					X		8 X													Murphy
B-716	Lovers Leap River Bluffs	50	X						X			2		X	X		X								X	X						Murphy
B-717	Texana Bluffs	40	X						X			2		X	X		X								X	X						Murphy
B-718	Marr Gap Bluffs	120	X						X			1		X	X		X								X	X						Murphy

1-contains relatively undisturbed vegetation (USDA-SCS)
2-rare ferns; oak-heath (rare blueberry) woodland
3-successional vegetation
4-prominent ridge
5-rare plant species
6-record plant species
7-river island
8-US Forest Service designated

SOUTHERN HIGHLANDS STUDY - SPECIAL AND UNIQUE PROTECTIVE ENVIRONMENTS County: Cherokee Sheet 2 of 2

Inventory Category	Site Parcel Name	Acreage or Length in mi.	Principal descriptive qualities																											Quandrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
B-719	Nottley Bluffs	110 Acres	X						X			1		X	X		X							X	X							Murphy
B-720	Ramsey Bend Bluffs	120	X						X			1		X	X		X							X	X							Murphy
B-721	Die Bend	240	X						X			1 2		X	9 X		X							X	X							Murphy
B-722	Crowder Bluff	40	X						X			1		X	X		X							X	X							Murphy
B-723	Rocky Fence Ridge	600	X						X			2		X	X	10 X	X							X	X					X	X	Murphy
B-724	Racetrack Bend Bluffs	50	X						X			2		X	X		X							X	X							Murphy
B-725	Valley River Mountains	210	X				X		X			1		X	X		X		4 X					X	X							Hayesville
B-726	Valley River Mountains	1780	X						X			1 2			X		X		4 X					X	X							Peachtree
B-727	Calhoun Branch Lake	20		X	X		X					2			X	X	X							X	X				X			Peachtree

9-physiographic river bends
10-Andrews schist

SOUTHERN HIGHLANDS STUDY - SPECIAL AND UNIQUE PROTECTIVE ENVIRONMENTS County: Henderson Sheet 1 of 4

Inventory Category	Site Parcel Name	Acreage or Length in mi.	Principal descriptive qualities																											Quandrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
B-700	Little Pisgah Mountain	20 Acres	X						X			1					X							X							Dunsmore Mt.
B-701	Stoney Bald	80	X						X			1					X														Dunsmore Mt.
B-702	South Fork Mills River - Island	15		X		X			X			2			X		X												X		Skyland
B-703	Forge Mountain Oxbow and Swamp	40		X	X				X			2			X	X	X												X		Skyland
B-704	Mills River Swamp	20		X		X			X			2			X		X												X		Skyland
B-705	Mills River Oxbow and Swamp	30		X	X	X			X			2			X	X	X												X		Skyland
B-706	Buck Shoals	20				X						2	X		X		X		2 X					X						Skyland
B-707	Fanning Bridge Swamp	15		X								1/2			X		X												X		Skyland
B-708	Huckleberry Mountain Outcrops	40	X						X			2			X		X								X						Fruitland
B-709	Piney Mountain Cliffs	80	X						X			2			X		X								X						Fruitland
B-710	Baldtop Mountain Outcrops	200	X						X			2			X		3 X								X						Fruitland
B-711	Kyles Creek Outcrops	10	X						X			2			X		X								X						Fruitland
B-712	Bank Mountain Outcrops	85	X						X			2			X		X								X						Fruitland
B-713	Hooper Creek Borge	380	X						X			2			X		X														Fruitland
B-714	Bear Wallow Mountain - Cliffs	10	X						X			2			X		X								X						Fruitland
B-715	Puncheon Camp Creek Falls	10	X						X			2			X		X								X						Fruitland
B-716	Pittillo Bog	10		X			X		X			2			X		X												X		Fruitland
B-717	Azalea Woodland	10	X						X			2					X														Fruitland
B-718	Bearwallow Mountain - Bald	400	X						X		X	2			X		X								X						Bat Cave

1-rare plant species 3-rare plant species & research area
2-whitewater stretch

Inventory Category	Site Parcel Name	Acreage or Length in mi.	Principal descriptive qualities																											Quandrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
B-719	Little Bearwallow Mountain - Outcrop	300 Acres	X						X			2			X		X								X						Bat Cave
B-720	Hickorynut Gorge	9280	X			X			X			2			X	X	X								X	X	X				Bat Cave
B-721	Bead and Lace Falls	45	X					X	X			2			X		X								X						Bat Cave
B-722	Burntshirt Mountain - Outcrop	150	X						X			2			X		X								X						Bat Cave
B-723	Toms Falls	10	X				X	X				2			X		X								X						Bat Cave
B-724	Camp Minnehaha Falls	10	X				X	X				2			X		X								X	X					Bat Cave
B-725	The Cascades of Brassy Creek	60	X				X	X				2			X		X								X	X					Bat Cave
B-726	Bald Mountain Outcrops	180	X				X	X	X			2			X	X	X								X	X	X				Bat Cave
B-727	Rich Mountain Outcrops	200	X						X			2			X		X								X	X					Bat Cave
B-728	Stoney Mountain Outcrops	20	X						X			2			X		X								X	X					Bat Cave
B-729	Cloven Cliffs	60	X						X			2			X		X								X	X					Bat Cave
B-730	Raven Cliffs	110	X						X			2			X		X								X	X					Bat Cave
B-731	Fork Mountain Outcrops	90	X						X			2			X		X								X	X					Bat Cave
B-732	Bald Rock Outcrops	80	X						X			2			X		X[3]								X						Bat Cave
B-733	Hog Rock Cove and Outcrop	10	X						X			2			X		X								X						Bat Cave
B-734	Pilot Mountain	40	X						X			2			X[4]		X								X						Cliffield Mt.
B-735	Hungry River Gorge	3900	X			X			X			2		X	X		X								X	X					Cliffield Mt.
B-736	Hungry River Swamps	50	X			X						2			X		X								X						Cliffield Mt.
B-737	Green River Gorge	960	X			X						2			X	X	X								X	X					Cliffield Mt.

4-prominent landform

SOUTHERN HIGHLANDS STUDY - SPECIAL AND UNIQUE PROTECTIVE ENVIRONMENTS County: Henderson Sheet 3 of 4

Inventory Category	Site Parcel Name	Acreage or Length in mi.	Principal descriptive qualities																											Quandrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
B-738	The Narrows - Outcrops	30 Acres	X						X			2			X	X	X								X	X						Cliffield Mt.
B-739	The Narrows - Shoals	25	X			X			X			2			X		X								X	X						Cliffield Mt.
B-740	Green River Gorge	1440	X			X			X			2			X		X								X	X						Hendersonville
B-741	Osceola Lake Swamp	10		X	X						X	2			X		X															Hendersonville
B-742	Highland Lake Swamp	10		X	X							2			X		X															Hendersonville
B-743	East Flat Rock Bogs	10		X					X			2			X		1 X															Hendersonville
B-744	Glassy Mountain Outcrop	670	X						X			2			X		1 X								X							Hendersonville
B-745	Stoney Mountain Outcrop	30	X						X			2			X		X								X							Hendersonville
B-746	Mudcreek Bridge Swamps	35		X								2			X		1 X															Hendersonville
B-747	Bright Water Falls	10	X				X	X	X			2			X		X								X							Horse Shoe
B-748	Jump Off Rock	30	X						X			2			X										X							Horse Shoe
B-749	Pine Knob	10	X						X			2			X		5 X															Horse Shoe
B-750	Etowah Bog	10	X						X			2			X		5 X															Horse Shoe
B-751	South Fork Mills River Primitive Area	1800	X			X			X			1		X	X		X								X	X						Pisgah Forest
B-752	Bald Rock Outcrop	50	X						X			2			X		X								X							Standing Stone Mt
B-753	Long Rock Branch Outcrop	25	X						X			2			X		X								X							Standing Stone Mt
B-754	Green River Outcrop	360	X						X			2			X		X								X							Standing Stone Mt
B-755	Mayburn Mountain Outcrop	80	X						X			2			X		X								X							Standing Stone Mt
B-756	The Pinnacle - Outcrop	420	X						X			2			X		X								X							Standing Stone Mt

5-rare plants

SOUTHERN HIGHLANDS STUDY - SPECIAL AND UNIQUE PROTECTIVE ENVIRONMENTS

County: Henderson

Sheet 1 of 4

Inventory Category	Site Parcel Name	Acreage or Length in mi.	Principal descriptive qualities																											Quandrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
B-757	Rock Creek Falls	15 Acres	X				X	X	X			2			X		X								X						Standing Stone Mt
B-758	Joanna Mt. - Outcrop	90	X						X			2			X		X								X						Standing Stone Mt
B-759	Stone Mountain - Outcrops		X						X			2			X		X								X						Standing Stone Mt
B-760	Shoal Creek Falls	25	X				X	X	X			2			X		X								X						Standing Stone Mt
B-761	Dry Branch Outcrop	40	X						X			2			X		X								X						Standing Stone Mt
B-762	The Flatwoods Outcrop	250	X						X			2			X		X								X						Standing Stone Mt
B-763	Grassy Mountain Outcrop	100	X						X			2			X		X								X	X					Zirconia
B-764	Huckleberry Ridge Outcrop	70	X						X			2			X		X								X						Zirconia
B-765	Rice Knob - Outcrop	60	X						X			2			X		X								X						Zirconia
B-766	McCarrol Mountain - Outcrop	40	X						X			2			X		X								X						Zirconia
B-767	Panther Mountain - Outcrop	30	X						X			2			X		X								X						Zirconia
B-768	Butler Mountain - Outcrop	60	X						X			2			X		X								X						Zirconia
B-769	Green River Gorge	110	X			X			X			2			X		X								X	X					Zirconia

B-47

SOUTHERN HIGHLANDS STUDY - SPECIAL AND UNIQUE PROTECTIVE ENVIRONMENTS County: Haywood Sheet 1 of 3

Inventory Category	Site Parcel Name	Acreage or Length in mi.	Principal descriptive qualities																											Quandrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
B-700	Pigeon River Gorge	2360 Acres	X			X						1			X		X								X	X						Waterville
B-701	Little Fall Branch (Falls)	15	X				X	X							X		X															Lemon Gap
B-702	Pigeon River Gorge	4800	X			X			X			1			X		X								X	X						Cove Creek Gap
B-703	Mt. Sterling	60	X						X			1			X		X								X	X						Cove Creek Gap
B-704	Baxter Creek	270	X				X					1			X		X								X	X						Cove Creek Gap
B-705	Walnut Bottom	120	X				X		X			1					2 X								X	X						Luftee Knob
B-706	Camel Gap	30	X						X		X	1					X								X	X						Luftee Knob
B-707	Upper Mouse Creek Falls	6	X				X	X	X			1					X								X							Luftee Knob
B-708	West Prong Mouse Creek Falls	5	X				X	X	X			1					X								X							Luftee Knob
B-709	Lower Mouse Creek Falls	5	X				X	X	X			1			X		X								X	X						Luftee Knob
B-710	Big Bald Fork - Caldwell Creek	40	X				X		X		X	1					1 X								X	X						Dellwood
B-711	Double Gap Branch Cove	370	X				X		X			1					X															Dellwood
B-712	Plott Balsom (Ridgetops)	320	X									1/2					X								X	X						Dellwood
B-713	Richland Creek Swamp	25		X			X					2			X		3 X												X			Clyde
B-714	Thickety Island	3		X		X						2			X		X												X			Clyde
B-715	Dotson Branch Island	1		X		X						2			X		X												X			Clyde
B-716	Panther Creek Island	2		X		X						2			X		X												X			Clyde
B-717	Rocky Face Mountain	120	X						X			2			X		X								X							Canton
B-718	The Glades - Swamps		X						X			2			X		4 X															Canton

1-rare tree species & other plants 3-rare plants 5-successional river woodland
2-showy plant species 4-rare plant species *Great Smoky Mountain Nat'l. Park

SOUTHERN HIGHLANDS STUDY - SPECIAL AND UNIQUE PROTECTIVE ENVIRONMENTS County: Haywood Sheet 2 of 3

Inventory Category	Site Parcel Name	Acreage or Length in mi.	Principal descriptive qualities																										Quandrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
B-719	Garden Creek Island	7 Acres	X						X			2			X		X[5]								X							Canton
B-720	Stamey Cove Islands	2	X						X			2			X		X[5]								X							Canton
B-721	Little Pisgah Mountain	15	X						X			1			X		X								X	X						Dunsmore Mt.
B-722	Flat Laurel Gap (Bogs)	25		X			X		X			1			X		X[6]								X	X			X			Cruso
C-700	Shining Rock Wilderness Area	5260	X				X		X			1		X	X		X							X	X	X						Cruso
B-723	Quinn Islands	25		X		X			X			2			X		X								X				X			Cruso
B-724	Meadow Grove Islands	60		X		X			X			2			X		X								X				X			Cruso
B-725	West Fork Pigeon River Gorge	75	X						X						X		X								X							Waynesville
C-701	Shining Rock Wilderness Area	2250	X				X					1			X		X							X	X	X						Waynesville
B-726	Retreat Island	15		X		X			X			2			X		X								X							Waynesville
B-727	Cathey Island	6		X		X			X			2			X		X								X							Waynesville
B-728	West Fork Campbell Creek Cove	380	X				X		X			1/2			X		X								X	X						Hazelwood
B-729	Plott Balsam	4660	X				X		X			1/2			X		X								X	X						Hazelwood
B-730	Laurel Patch Bald	40	X								X	1			X		X								X	X	X					Hazelwood
B-731	Flat Gap	10	X								X	1			X		X								X	X	X					Hazelwood
B-732	Old Bald	15	X								X	1			X		X								X	X	X					Hazelwood
B-733	Lone Bald	15	X								X	1			X		X								X	X	X					Hazelwood
B-734	Saunook Branch Cove	360	X									1/2			X		X								X	X	X					Hazelwood
B-735	Plott Balsams	55	X						X			1			X										X		X					Addie

6-rare bog species **Blue Ridge Parkway

SOUTHERN HIGHLANDS STUDY - SPECIAL AND UNIQUE PROTECTIVE ENVIRONMENTS County: Haywood Sheet 3 of 3

Inventory Category	Site, Parcel Name	Acreage or Length in mi.	Principal descriptive qualities																											Quandrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
B-736	West Fork Campbell Creek Cove	1100 Acres	X						X			1/2			X		X							X	X						Addie
B-737	Richland Balsam	225	X						X			1			X		X7							X	X	X					Sam Knob
B-738	Sam Knob	230	X								X	1			X		X								X	X					Sam Knob
B-739	West Fork Pigeon River Gorge	5940	X						X			1/2			X		X								X	X	X				Sam Knob
B-740	Fork Ridge Grass Balds	290	X						X		X	1			X		X								X	X					Sam Knob
B-741	Chestnut Bald-Silvermine Bald Cliffs	50	X						X			1			X	X	X								X		X				Sam Knob
B-742	Rough Butt Bald	20	X						X		X	1			X		X								X		X				Sam Knob
C-702	Shining Rock Wilderness Area	1650	X						X		X	1		X	X	X	X							X	X	X					Sam Knob
C-703	Shining Rock Wilderness Area	6550	X				X		X		X	1		X	X	X	X							X	X	X					Shining Rock
B-743	Cranberry Bogs	10	X								X	1					X4														Shining Rock
B-744	Graveyards (inc. Upper Falls, Second Falls & Yellowstone Falls)	660	X				X	X	X		X	1					X							X	X	X					Shining Rock

7-exemplary fir forest

SOUTHERN HIGHLANDS STUDY - SPECIAL AND UNIQUE PROTECTIVE ENVIRONMENTS County: Jackson Sheet 1 of 3

Inventory Category	Site Parcel Name	Acreage or Length in mi.	Principal descriptive qualities																											Quandrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
B-700	Big Witch Gap	15 Acres	X									1					X									X	X				Bunches Bald
B-701	Barkers Creek River Bluff	60	X			X						2					1 X														Whittier
B-702	Jacks Creek Island	1		X		X						2			X		X												X		Whittier
B-703	Barkers Island	10		X		X						2			X		X												X		Whittier
B-704	Dicks Creek Islands	3		X		X						2			X		X												X		Whittier
B-705	Hazel Hollow Island	1		X		X						2			X		X												X		Whittier
B-706	Soco Falls	15	X				X	X	X			1		X	X										X	X	X				Addie
B-707	Hornbuckle Creek Gorge	1435	X				X		X			2		X	X										X						Addie
B-708	Foster Swamp	35		X			X					2					X												X		Addie
B-709	Yellow Face Outcrop	40	X						X			2			X		X								X		X				Addie
B-710	Plott Balsams (Ridge Tops)	9700	X						X		X	1/2		X	X		X									X	X	X			Addie
B-711	Plott Balsams (Ridge Tops)	1475	X					X	X		X	1/2		X	X		X														Hazelwood
B-712	Woodfin Falls	10	X				X	X	X			2		X												X	X	X			Hazelwood
B-713	Laurel Patch Bald	40	X						X	X		1					X									X	X	X			Hazelwood
B-714	Flat Gap (Bald)	15	X						X	X		1					X									X	X	X			Hazelwood
B-715	Old Bald	10	X						X		X	1/2					1 X								X	X					Hazelwood
B-716	Lone Bald	25	X						X		X	1					2 X								X	X					Hazelwood
B-717	Dark Ridge	1245	X				X		X			2		X	X	X	3 X														Hazelwood
B-718	Richland Balsam	280	X						X			1/2		X			X									X	X				Sam Knob

1-rare plant species
2-Grass/heath bald/Oak/orchard
3-Grass Bald/Spruce - fir forest
4-Rare species
*Cherokee Indian Reservation

Inventory Category	Site Parcel Name	Acreage or Length in mi.	Principal descriptive qualities																											Quandrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
B-756	Sheep Cliff Outcrop	330 Acres	X						X			2			X		X								X							Big Ridge
B-757	Cedar Creek Shoals	10	X				X	X	X			2						X							X							Big Ridge
B-758	Little Green Mountain Outcrops	75	X						X			2			X	X	X								X							Big Ridge
B-759	Big Green Mountain Outcrops	60	X						X			2			X	X									X							Big Ridge
B-760	Black Rock Mountain Outcrops	15	X						X			2			X	X	X								X							Big Ridge
B-761	Bald Rock Mountain Cliffs	110	X						X			2			X	X									X							Big Ridge
B-762	Slatten Falls (Part of Robinson Creek Gorge)	10	X				X	X	X			2			X		X								X							Big Ridge
B-763	Flat Creek - Lower Falls	10	X				X	X	X			2			X		X								X							Big Ridge
B-764	Flat Creek - Upper Falls	10	X				X	X	X			2			X		X								X							Big Ridge
B-765	Panthertown Creek Bogs	520		X			X					2			X		1 X								X				X			Big Ridge
B-766	Tuckasegee River Gorge	500	X			X		X	X			2		X	X	X	1 X	X	2 X						X	X						Big Ridge
B-767	Sole Creek Falls (Part of River Cliffs of the Dismal)	10	X				X	X	X			2			X		X	X							X	X						Big Ridge
B-768	River Cliffs of the Dismal	230	X				X		X			2			X										X	X						Big Ridge
B-769	Robinson Creek Gorge	1045	X				X		X			2			X										X	X						Big Ridge
B-770	Tanasee Creek Gorge	1030	X				X	X	X			2		X	X		X								X	X						Lake Toxaway
B-771	Cold Creek Falls	6	X				X	X	X			2			X										X							Lake Toxaway
B-772	Hogback Mountain & Upper Greenland Creek Valley	650	X	X			X	X	X			2		X	X		1 X												X			Lake Toxaway
B-773	Greenland Creek Falls	8	X				X	X				2			X		X															Lake Toxaway
A-700	Chattooga Wild River	6900	X			X			X			1/2			X	X	X						1 X		X	X	X					Cashiers

12-very rugged terrain
13-swamps/bogs & rare plant species

SOUTHERN HIGHLANDS STUDY - SPECIAL AND UNIQUE PROTECTIVE ENVIRONMENTS County: Jackson Sheet 3 of 3

Inventory Category	Site Parcel Name	Acreage or Length in mi.	Principal descriptive qualities																										Quandrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
B-774	Whitewater River Gorge	450 Acres	X			X		X				1		X	X	X	1 X								X	X	X					Cashiers
B-775	Terrapin Mountain	150	X						X			1			X	X									X							Cashiers
B-776	Mulkey Gap Bogs	40		X			X					2					2 X		3 X										X			Cashiers
B-777	Little Terrapin Mountain	230	X						X			2			X	X									X							Cashiers
B-778	Timber Ridge	210	X						X			2			X	X	X								X							Cashiers
B-779	Silver Run Falls	4	X				X	X	X			1			X										X	X	X					Cashiers
B-780	Silver Run Creek Flatwoods	100		X			X		X			2		X	X		X		1 X													Cashiers
B-781	Chimneytop Mountain	185	X						X			2			X	X	1 X								X							Cashiers
B-782	Rocky Mountain	260	X						X			2			X	X	1 X		2 X						X	X						Cashiers
B-783	Upper Falls of Whitewater River	12	X			X		X				1			X	X	3 X								X	X	X					Cashiers
B-784	Shortoff Mountain	100	X						X			2					1 X									X						Highlands
B-785	Cowee Gap	40	X						X			2			X										X		X					Highlands
B-786	Whiteside Mountain	1850	X						X			1/2			X	X	1 X		2 X						X	X						Highlands
B-787	Black Rock Mountain	445	X						X			1/2			X	X	X								X	X						Highlands
B-788	Lizzie Mountain Outcrops	235	X						X			2			X		X								X							Big Ridge
B-789	Hightop Mountain Outcrops	210	X						X			2			X		X								X							Big Ridge
B-790	Schoolhouse Falls	5	X				X	X				2			X		1 X								X	X						Big Ridge
A-701	Chattooga Wild River	1155	X			X			X			1		X	X	X	X						1 X		X	X						Highlands

14-rare & very rare plant species
15-research area Highlands Biological Station
16-Swamps, best example of lowland forest in area.
17-outcrop habitat
18-research station
19-rare plants
20-considered for Natural Landmark rock outcrop
21-designated by U. S. Forest Service

SOUTH CAROLINA

SOUTHERN HIGHLANDS STUDY - SPECIAL AND UNIQUE PROTECTIVE ENVIRONMENTS County: Anderson Sheet 1 of 3

Inventory Category	Site/Parcel Name	Acreage or Length in Mi.	Principal descriptive qualities																											Quadrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
Bb 16	Upland Black Tupelo	cir. 6'-7"															X								X							
Bb 20	Arizona Cypress	cir. 5'-2"															X								X							
	Red Pine	cir. 2'-7"															X								X							
Bb 21	Black Locust	cir. 10'-10"															X								X							
Bb 22	Hazel Alder	cir. 1'-1"															X								X							
Bc 57	Warm Fresh Water Fish																															
	Bass, Shad, Sunfish				X								X				X									X						
D 123	Honea Path: Latimer House																								X							
	Shirley Hotel																								X							
D 124	Salley Reed Graveyard																								X							
D 125	Big Creek Baptist Church																			X					X							
D 126	Williamston: Site of																															
	Williamston Female College																															
	Last Battle of the Civil																															
	War in the East																			X												
D 127	Belton: Belton Standpipe																			X												
	Chamberlain House																			X												
D 128	Craytonville Well																			X												
D 129	Varennes Tavern																			X					X							

SOUTHERN HIGHLANDS STUDY - SPECIAL AND UNIQUE PROTECTIVE ENVIRONMENTS County: Anderson Sheet 2 of 3

Inventory Category	Site/Parcel Name	Acreage or Length in Mi.	Principal descriptive qualities																											Quadrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
D 130	Good Hope Presbyterian Church																			X					X						
D 131	Afro-land Association																			X											
D 132	Mountain Creek Baptist Church																			X					X						
D 133	Anderson: Anderson College																			X											
	Donald E. Brown Residence																			X					X						
	First Presbyterian Church																			X					X						
	Provost House																			X					X						
	Anderson County Court House																			X											
	Bishop Capers House																			X					X						
	High Shoals																	X		X											
	Wilhite Brown House																			X					X						
	Little Arlington																			X					X						
	Anderson Historic District:	(NRP)																		X					X						
	Butler House																			X					X						
	Miss Dena Buckley House																			X					X						
	Elijah Webb Brown House																			X					X						
	Broyles Acker House																			X					X						
	First Baptist Church																			X					X						
	Frierson-Marshall House																			X					X						

SOUTHERN HIGHLANDS STUDY - SPECIAL AND UNIQUE PROTECTIVE ENVIRONMENTS

County: Anderson Sheet 3 of 3

Inventory Category	Site/Parcel Name	Acreage or Length in Mi.	Principal descriptive qualities																											Quadrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
D 133	Anderson Historic District:	(NRP)																												
	Grace Episcopal Church																			X					X						
	Johnson-Morris Cottage																				X				X						
	St. John's Methodist Church																			X					X						
	John P. Sullivan House																			X					X						
	Poppe House																			X					X						
D 134	Marialands																			X					X						
D 135	Manse Jolly House																			X					X						
D 136	Site of Equality Post Office																														
D 137	Ann Kennedy House																			X					X						
D 138	Hickory Flat																			X					X						
D 139	Pendleton Factory																			X					X						
D 140	Site of Portman Shoals																			X											
D 141	Andersonville Island																			X											

SOUTHERN HIGHLANDS STUDY - SPECIAL AND UNIQUE PROTECTIVE ENVIRONMENTS County: Oconee Sheet 1 of 7

Inventory Category	Site/Parcel Name	Acreage or Length in Mi.	Principal descriptive qualities																											Quadrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
A 1	Chattooga River	approx. .34				X		X				1	X	X	X		X						X		X	X						
Ba 1	Fold and Migmatite																															
Ba 2	Poar Mt: amphibolite														X	X									X							
	Henderson allgen gneiss																															
	feldspathic quartzite +														X	X									X							
Ba 3	Woodall Shoals (on Chattooga River)					X						1	X		X	X		X					X		X	X						
Ba 4	Round Mt.														X	X									X							
Ba 5	Sandy Ford (on Chattooga River)					X						1	X	.	X				X				X		X	X						
Ba 6	Narrows of the Chauga River					X							X		X				X						X	X						
Ba 7	Stumphouse Tunnel														X										X							
Ba 8	Fault Area	approx. 20,800 acres														X														X		
Ba 9	Rock Fold														X	X									X							
Ba 11	Long Mountain														X																	
Ba 12	Ellicott Rock														X										X							
Ba 13	Whitewater River Gorge					X		X							X	X									X							
Ba 33	Thomson River Gorge					X									X	X									X							
Ba 34	Horsepasture River Gorge					X									X	X									X							
Ba 35	Toxaway River Gorge					X									X	X																
Ba 40	Beaucamp Creek Gorge						X								X	X									X							

SOUTHERN HIGHLANDS STUDY - SPECIAL AND UNIQUE PROTECTIVE ENVIRONMENTS

County: Oconee Sheet 2 of 7

Inventory Category	Site/Parcel Name	Acreage or Length in Mi.	Principal descriptive qualities																											Quadrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
Bb 1	Changa River					X							X	X											X						
Bb 2	Pitch Pine: cir. 6'-5",																														
	height 84', spread 30'																								X						
Bb 3	E. Hemlock: cir. 10'-2",																														
	height 148', spread 48'																														
	White Pine: cir. 12'-6",																														
	height 168', spread 60'																														
Bb 4	Cinramon Clethra: cir. 8"																														
	height 22", spread 9', National Champion																														
	Fraser Magnolia: cir. 11'-4",																														
	height 75', spread 20'																														
	Rosebay Rhododendron: cir.																														
	1'-9", height 22", spread 22'																														
Bb 5	Chestnut Oak: cir. 10'-2"																X								X						
Bb 6	Sweet Birch: cir. 10'-2" Mountain Laural: cir. 2'-2"																X								X						
Bb 7	Witch Hazel: cir. 1'-1"																X								X						
Bb 8	Mountain Stewartia: cir. 7"																X								X						
Bb 9	Coon Branch Nat. Area, 300-																														
	400 yr. old/15 acres, hemlock and yellow poplar								X								X								X						

SOUTHERN HIGHLANDS STUDY - SPECIAL AND UNIQUE PROTECTIVE ENVIRONMENTS County: Oconee Sheet 3 of 7

Inventory Category	Site/Parcel Name	Acreage or Length in Mi.	Principal descriptive qualities																											Quadrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
Bb 10	Oconee Bells, rare localized																													
	plants growing along streams						X										X								X						
Bb 15	Clemson Univ: approx. 21,500	acres							X								X								X						
Bb 26	Pitch Pine: cir. 6'-5"												X				X								X						
Bb 27	Table Mt. Pine: height 4'-5"																X								X						
Bc 1	Redeye or Coosae Bass, prefer cool and swift water					X							X				X									X					
Bc 2	Redeye or Coosae Bass found in water too warm for trout						X						X				X								X	X					
Bc 3	Rainbow and Brown Trout (Stocked yearly)						X						X				X								X	X					
Bc 4	Rainbow and Brown Trout water (Stocked yearly)						X						X				X								X	X					
Bc 5	Wild turkey													X			X								X	X					
Bc 6	Rainbow and Brown Trout						X						X				X									X					
Bc 7	Rainbow and Brown Trout					X							X				X								X	X					
Bc 8	Rainbow and Brown Trout					X							X				X								X	X					
Bc 9	Rainbow and Brown Trout						X						X				X								X	X					
Bc 10	Rainbow and Brown Trout												X				X								X	X					
Bc 11	Rainbow and Brown Trout												X				X								X	X					
Bc 12	Rainbow and Brown Trout												X				X								X	X					
Bc 13	Rainbow and Brown Trout												X				X								X	X					
Bc 14	Rainbow and Brown Trout												X				X								X	X					

SOUTHERN HIGHLANDS STUDY - SPECIAL AND UNIQUE PROTECTIVE ENVIRONMENTS County: Oconee Sheet 4 of 7

Inventory Category	Site/Parcel Name	Acreage or Length in Mi.	Principal descriptive qualities																											Quadrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
Bc 15	Rainbow and Brown Trout												X				X								X	X					
Bc 16	Redeye or Coosae Bass												X				X								X	X					
Bc 17	Rainbow and Brown Trout												X				X								X	X					
Bc 18	Wild Turkey													X			X								X	X					
Bc 19	Bass												X				X								X	X					
Bc 20	Trout												X				X								X	X					
Bc 21	Trout												X				X								X	X					
Bc 22	Trout												X				X								X	X					
Bc 23	Trout												X				X								X	X					
Bc 24	Trout												X				X								X	X					
Bc 25	Trout Hatchery												X				X									X					
Bc 26	Ruffed Grouse, Racoons												X	X			X								X	X					
Bc 27	Trout												X				X								X	X					
Bc 28	Trout												X				X								X	X					
Bc 29	Trout												X				X								X	X					
Bc 30	Trout												X				X								X	X					
Bc 31	Trout												X				X								X	X					
Bc 32	Trout												X				X								X	X					
Bc 33	Trout												X				X								X	X					

SOUTHERN HIGHLANDS STUDY - SPECIAL AND UNIQUE PROTECTIVE ENVIRONMENTS County: Oconee Sheet 5 of 7

Inventory Category	Site/Parcel Name	Acreage or Length in Mi.	Principal descriptive qualities																											Quadrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
Bc 34	Bass					X							X				X								X	X					
Bc 58	Squirrel								X					X			X								X	X					
Bd 1	Brasstown Falls						X	X							X			X							X						
Bd 2	Five Falls at the Chattooga					X		X							X			X						X	X						
Bd 3	Cedar Creek Falls						X	X							X			X							X						
Bd 4	Yellow Creek Falls						X	X							X			X							X						
Bd 5	Isaqueena Falls						X	X										X							X						
Bd 6	Lower Whitewater Falls					X		X										X							X						
Bd 10	Dick's Creek Water Falls					X	X	X										X					X		X	X					
Bd 12	Woodall Shoals (Rapids)					X												X					X		X	X					
Bd 13	Bull Sluice (Rapids)					X												X					X		X						
D 1	Prather's Bridge																				X				X						
D 2	Alexander Ramsey House																			X					X						
D 3	Doyle House																			X					X						
D 4	Sites of the Battle of Oconore																								X						
D 5	Madison Baptist Church																			X					X						
D 7	Horseshoe Robinson Home																			X					X						
D 8	Retreat Presbyterian Church																								X						
D 9	Barrett's Retreat											2								X					X						

SOUTHERN HIGHLANDS STUDY - SPECIAL AND UNIQUE PROTECTIVE ENVIRONMENTS County: Oconee Sheet 6 of 7

Inventory Category	Site/Parcel Name	Acreage or Length in Mi.	Principal descriptive qualities																											Quadrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
D 10	Westminster: John's House (| Miller house)																		X					X						
	Zimmerman House																			X					X						
D 11	Walnut Hill																			X					X						
D 12	Ramey's Mill																			X					X						
D 13	Joseph Grisham House																			X					X						
D 14	Isaqueena Falls							X										X							X						
D 15	Major Stribling House																			X					X						
D 16	J. D. McMahom House																			X					X						
D 17	Richland Presbyterian Church																			X					X						
D 18	Seneca: Gignilliat House																			X					X						
	Lowry Land																			X					X						
	Rooch Matheson Log Cabin																			X					X						
	Jesse Stribling House																			X					X						
D 19	Greenway																			X					X						
D 20	John Kleinbeck House																			X					X						
D 21	CRD Burris Mill																			X					X						
D 22	Walhalla: St. John's Lutheran Church																			X					X						
	Hughes House																			X					X						
	Dr. Frederick Thode House																			X					X						

SOUTHERN HIGHLANDS STUDY - SPECIAL AND UNIQUE PROTECTIVE ENVIRONMENTS County: Oconee Sheet 7 of 7

Inventory Category	Site/Parcel Name	Acreage or Length in Mi.	Principal descriptive qualities																											Quadrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
	Walhalla Graded School											1																			
	Grant Arce																			X					X						
	St. John's Manse																			X					X						
	John Jacobs Thode House																			X					X						
	Walhalla Opera House											2								X					X						
D 23	Bethel Presbyterian Church																			X					X						
D 24	William Richards House																			X					X						
D 25	Tamassee																			X					X						
D 26	Site of General Pickens Last Home																														
D 27	Rins Fight or Second Battle of Tomassey																														
D 28	Russell House											1											X		X						
D 29	Ellicott's Rock																														
D 30	Site of Battles of the Indian Villages																														
D 31	Battle of Tomassey																														
D 32	Innisfallen																			X					X						

SOUTHERN HIGHLANDS STUDY - SPECIAL AND UNIQUE PROTECTIVE ENVIRONMENTS County: Pickens Sheet 1 of 4

Inventory Category	Site/Parcel Name	Acreage or Length in Mi.	Principal descriptive qualities																										Quadrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
Ba 14	Jumping Off Rock														X										X							
Ba 15	Cedar Creek Mountain														X										X							
Ba 16	Rock Fold (Agmatite)														X	X									X							
Ba 17	Rock Fold (Biotite Gneiss - Biotite Schist)														X	X									X							
Ba 18	Rock Fold - Outstanding exposure														X	X									X							
Ba 19	Six Mile Mountain														X										X							
Ba 20	Sassafras Mountain														X										X							
Ba 34	Horsepasture River Gorge					X									X										X							
Ba 35	Toxaway Creek Gorge					X									X										X							
Ba 36	Caesar's Head														X										X							
Ba 40	Bear Camp Creek Gorge						X								X										X							
Bb 11	Oconee Bells (Rare)						X		X								X								X							
Bb 12	Stand of Carolina Hemlock								X								X								X							
Bb 13	Port Orford Cedar, Cir. 2'- 8"																X								X							
Bb 14	White Basswood Cir. 6'- 3" Cucumber Magnolia, Cir. 5'- 3"																X								X							
Bb 15	Clemson University								X			1					X								X							
Bb 16	Upland Black Tupolo, Cir. 6' - 7"																X								X							
Bb 23	Eastop Creek and Reedy Cove Creek, approx. 12,700 acres						X										X								X							
Bb 24	Rare Sub-tropical Fern Pocket approx. 2,600 acres						X										X								X							

SOUTHERN HIGHLANDS STUDY - SPECIAL AND UNIQUE PROTECTIVE ENVIRONMENTS County: Pickens Sheet 2 of 4

Inventory Category	Site/Parcel Name	Acreage or Length in Mi.	Principal descriptive qualities																											Quadrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
Bb 28	Carolina Hemlock, Cir. 5'-9"																X								X						
Bb 29	Weeping Willow, Cir. 2'-6"																X								X						
Bb 30	Yellow Buckeye, Cir. 5'-6"																X								X						
Bc 34	Redeye or Coosae Bass					X							X				X									X					
Bc 35	Trout						X						X				X									X					
Bc 36	Trout						X						X				X									X					
Bc 37	Trout						X						X				X									X					
Bc 38	Trout						X						X				X									X					
Bc 39	Ruffed Grouse, Racoon													X			X								X	X					
Bc 40	Trout						X						X				X									X					
Bc 41	Trout						X						X				X									X					
Bc 42	Trout					X							X				X									X					
Bc 43	Redeye or Coosae Bass					X							X				X									X					
Bc 44	Redeye or Coosae Bass					X							X				X									X					
Bc 59	Trout					X							X				X									X					
Bc 60	Trout					X							X				X									X					
Bd 7	Several Waterfalls					X	X										X								X	X					
Bd 8	Reedy Falls					X	X										X								X	X					
Bd 33	Site of Fort											1														X					

SOUTHERN HIGHLANDS STUDY - SPECIAL AND UNIQUE PROTECTIVE ENVIRONMENTS County: Pickens Sheet 3 of 4

Inventory Category	Site/Parcel Name	Acreage or Length in Mi.	Principal descriptive qualities																											Quadrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
D 34	Site of Seneca Old Town																									X						
D 35	Gaines											2								X						X						
D 36	Fort Hill											1									X					X	X					
D 37	Hunt Log Cabin											1														X						
D 38	Clemson University											1														X						
D 39	Norris House											2								X						X						
D 40	Calhoun Burial Ground											2								X						X						
D 41	Old Cocnhran House																		X						X							
D 42	Intersection of Keowee Trail and Great War Path											1																				
D 43	Chapman's Bridge											1													X							
D 44	Horse Pasture																			X					X							
D 45	Rocky Bottom 4-H Camp											1													X	X						
D 46	Table Rock Mountain											1													X	X						
D 47	Ezekial Pickens House																			X					X							
D 48	Pumpkintown																								X							
D 49	Hagood Grist Mill																								X							
D 50	First Pastorium																			X					X							
D 51	Redmond Post Office																								X							
D 52	Hunter's Post																			X					X							

SOUTHERN HIGHLANDS STUDY - SPECIAL AND UNIQUE PROTECTIVE ENVIRONMENTS County: Pickens Sheet 4 of 4

Inventory Category	Site/Parcel Name	Acreage or Length in Mi.	Principal descriptive qualities																											Quadrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
D 53	Pickens: Elihu and Ann Griffin House																			X					X							
	Hagood Log Cabin																								X							
	Ben Hagood Summer House											2								X					X							
	Homestead Hall											2								X					X							
	Taylor House																			X					X							
D 54	Bowen House																			X					X							
D 55	Carmel Presbyterian Church																			X					X							
D 56	Sitton Hill																			X					X							
D 57	Ruins of Pickensville											1													X							
D 58	Mountain View Hotel											2								X					X							
D 59	Throstle Spinning Frame																			X					X							
D 60	John Easley Home																			X					X							
D 61	Ponder House																			X					X							
D 142	Hester House																			X					X							

SOUTHERN HIGHLANDS STUDY - SPECIAL AND UNIQUE PROTECTIVE ENVIRONMENTS County: Greenville Sheet 1 of 8

Inventory Category	Site/Parcel Name	Acreage or Length in Mi.	Principal descriptive qualities																											Quadrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
Ba 22	Cold Baromy Mt.														X										X							
Ba 23	Raven Cliffs Falls						X	X							X			X							X							
Ba 24	Caesers Head														X										X							
Ba 25	Bald Rock														X										X							
Ba 26	Osborne Mt.														X										X							
Ba 27	Posey Mt.														X										X							
Ba 28	Even's Mt.														X										X							
Ba 29	Old Indian Mt.														X										X							
Ba 30	Hogback Mt.														X										X							
Ba 31	Glassy Rock Mt.														X										X							
Ba 32	Paris Mt.														X										X							
Ba 37	Standingstone Mt. (Cleveland Cliff and Rainbow Falls)						X	X							X			X							X							
Ba 38	McCarrol Mt.														X										X							
Ba 39	Pantler Mt.														X										X							
Bb 17	Oconee Bells						X										X								X							
Bb 18	Carolina Hemlock Stands								X								X								X							
Bb 19	Black Cherry, cir. 11'-2"																X								X							
	Osage Orange, cir. 14'-9"																X								X							
Bb	European White Poplar, cir.9'-10"																X								X							

SOUTHERN HIGHLANDS STUDY - SPECIAL AND UNIQUE PROTECTIVE ENVIRONMENTS County: Greenville Sheet 2 of 8

Inventory Category	Site/Parcel Name	Acreage or Length in Mi.	Principal descriptive qualities																											Quadrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
	Blue Spruce, cir. 2'-10"																X								X						
Bb 25	Mathews Creek Bogs (Rare plants) approx. 7,700 acres						X										X								X						
Bc 43	Coosae or Redeye Bass					X							X				X									X					
Bc 44	Coosae or Redeye Bass					X							X				X									X					
Bc 45	Trout						X						X				X									X					
Bc 46	Trout						X						X				X									X					
Bc 47	Squirrel								X					X			X								X	X					
Bc 48	Trout					X							X				X								X	X					
Bc 49	Trout					X							X				X								X	X					
Bc 50	Trout					X							X				X								X	X					
Bc 51	Deer								X					X			X								X	X					
Bc 52	Trout					X							X				X									X					
Bc 53	Trout					X							X				X									X					
Bc 54	Trout					X							X				X									X					
Bc 55	Trout						X						X				X								X	X					
Bc 59	Trout					X							X				X								X	X					
Bc 60	Trout					X							X				X								X	X					
Bd 9	Raven Cliff Falls						X	X										X							X						
Bd 11	Rainbow Falls						X	X										X							X						

SOUTHERN HIGHLANDS STUDY - SPECIAL AND UNIQUE PROTECTIVE ENVIRONMENTS County: Greenville Sheet 3 of 8

Inventory Category	Site/Parcel Name	Acreage or Length in Mi.	Principal descriptive qualities																											Quadrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
D 62	Rowland Cabin																			X					X						
D 63	Dill Cabin																			X					X						
D 64	Blythe House																			X					X						
D 65	Golden Grove Baptist Church																			X					X						
D 66	Traveler's Rest Area																														
D 67	Anderson House (in Travelers Rest)																			X					X						
D 68	Site of Dicey Langston House																														
D 69	Hardy Gilreath House																			X					X						
D 70	Dickey House																			X					X						
D 71	Ballenger's Mill											1													X	X					
D 72	Glassey Mountain														X										X						
D 73	Site of Block House											1																			
D 74	Gowensville Baptist Church																			X					X						
D 75	Site of the Battle of Gowens Fort																														
D 76	John Dill House																			X					X						
D 77	O'Hara Barton House																			X					X						
D 78	Campbell's Bridge											1													X						
D 79	S. G. Berru's Mill																														
D 80	Mostellar's Mill																			X					X						

SOUTHERN HIGHLANDS STUDY - SPECIAL AND UNIQUE PROTECTIVE ENVIRONMENTS County: Greenville Sheet 4 of 8

Inventory Category	Site/Parcel Name	Acreage or Length in Mi.	Principal descriptive qualities																											Quadrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
D 81	John Thomas - John Belton O'Neal House																			X					X						
D 82	Gilreath's Mill																			X					X						
D 83	Reese House																			X					X						
D 84	Jesse Taylor House																			X					X						
D 85	Edward's Mill																								X						
D 86	Choice Summer House																			X					X						
D 87	Rock House																			X					X						
D 88	James C. Furman House																			X					X						
D 89	Greenville: Governor Joseph	Allston House										2								X					X						
	Beattie House											2								X					X						
	Briggs House											2								X					X						
	Buncombe House											2								X					X						
D 89	Greenville: Christ Church (| Episcopal)										2									X				X						
	Site of Confederate Armory											1																			
	T. Q. Donaldson House											2								X					X						
	Easley Town House											2								X					X						
D 89	Greenville: Site of Greenville Male and Female Academies																														
	Judson Cottage																			X					X						
	Josiah Kilgore House																			X					X						

SOUTHERN HIGHLANDS STUDY - SPECIAL AND UNIQUE PROTECTIVE ENVIRONMENTS County: Greenville Sheet 5 of 8

Inventory Category	Site/Parcel Name	Acreage or Length in Mi.	Principal descriptive qualities																											Quadrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
D 89	Greenville: Landrum House																			X					X						
D 89	Greenville: Lanneau House																			X					X						
	Matoon Presbyterian Church																			X					X						
	Site of Sans Souci																														
	Southern Railroad Depot																			X					X						
D 89	Greenville: Josh White Birthplace																			X											
	Nathan Whitmire House																			X					X						
	Mrs. Harriet D. Wilkins House																			X					X						
D 89	Downtown Greenville: First Baptist Church																			X					X						
	Site of Baptist Courier Offices																														
	Site of Camperdown Mill																														
	Site of Chicora College																														
	Site of Greenville County Courthouse											1																			
	Site of Furman University											2								X					X						
	Gower, Markley and Cox Blgd.																			X											
	Huguenot Mill																			X											
	Site of the Mansion House																														
	Markley Hardware Company Bldg.																			X											
	Site of McBee's Mills																														

SOUTHERN HIGHLANDS STUDY - SPECIAL AND UNIQUE PROTECTIVE ENVIRONMENTS County: Greenville Sheet 6 of 8

Inventory Category	Site/Parcel Name	Acreage or Length in Mi.	Principal descriptive qualities																										Quadrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
D 89	Downtown Greenville: Site of Benjamin Perry's Law Office																														
	First Presbyterian Church																			X					X						
	Site of Record Building																														
	Reedy River Falls														X			X							X						
	Seidenberg Cigar Factory																			X											
	Site of Southern Baptist Seminary																														
	Old Textile Hall																														
	Trolley Barn											2													X						
	U. S. Post Office - 1892											1													X						
	Ruins of Vardry Mill																														
	John Wesley Methodist Church																			X					X						
	Greenville City Hall																				X										
D 90	Henry Paris Place																			X					X						
D 91	Gen. John Blassingame Cemetery																			X					X						
D 92	Lowndes Hill Plantation																			X					X						
D 93	Parkins Mill																								X						
D 94	Site of Carruth's Gun Factory																														
D 95	Reedy River Mills																														
D 96	McBee Chapel																				X				X						

SOUTHERN HIGHLANDS STUDY - SPECIAL AND UNIQUE PROTECTIVE ENVIRONMENTS County: Greenville Sheet 7 of 8

Inventory Category	Site/Parcel Name	Acreage or Length in Mi.	Principal descriptive qualities																											Quadrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
D 97	Gilder																			X					X						
D 98	William Bates House																			X					X						
D 99	Batesville Manufacturing Company																			X					X						
D 100	Fountain Inn: First Baptist Church																			X					X						
	Fountain Inn Cotton Mill																			X											
	Robert Quillen Office																			X					X						
D 101	Fairview Presbyterian Church																			X					X						
D 102	Bolling House																			X					X						
D 103	Site of James Harrison House																														
D 104	Hudson Berry House																			X					X						
D 105	Hudson Berry's Mill																			X					X						
D 106	Fork Shoals																			X					X						
D 107	Great Come Brake																														
D 108	Cureton-Huff House																			X					X						
D 109	John Charles House																			X					X						
D 110	Barksdale Charles House																			X					X						
D 111	General B. D. Garrison House																			X					X						
D 112	Israel Charles House																			X					X						
D 113	Dr. Willlam Loor House																			X					X						

SOUTHERN HIGHLANDS STUDY - SPECIAL AND UNIQUE PROTECTIVE ENVIRONMENTS County: Greenville Sheet 8 of 8

Inventory Category	Site/Parcel Name	Acreage or Length in Mi.	Principal descriptive qualities																											Quadrangle
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
D 114	James McDavid House																			X					X						
D 115	Woodside House																			X					X						
D 116	Ware Place																			X					X						
D 117	Lickville Presbyterian Church																			X					X						
D 118	Scott House																			X											
D 119	Lebanon Methodist Church																			X					X						
D 120	Site of Corner Tree Indian Boundary Line																														
D 121	McCullough House																			X					X						
D 122	Abraham Collins House																			X					X						
D 143	Site of Hite's Massacre																														
D 144	Suber's Mill																			X					X						

Appendix C

TOURISM/RECREATION INDUSTRY ECONOMIC IMPORT ANALYSIS

1. BUSINESS FIRMS SURVEY FORM

CONFIDENTIAL

-Survey of Business and Commercial Firms-

1. In what county are you located? _____

2. Type of Business (Please check one which best describes firm).

   _____ a. Hotel or Motel.
   _____ b. Campground.
   _____ c. Eating and/or Drinking Place.
   _____ d. Gasoline Service Station.
   _____ e. Recreation and/or Amusement Place (e.g., Summer Stock Theater, Golf Course, Amusement Park).
   _____ f. Other. Please specify. _____

3. Is your business open year-round? _____yes _____no

   If no, which months of the year do you operate?_____
   _____

4. How many of your employees were employed during the entire year of 1972? _____

   Did you hire any additional employees for the tourist season?
   _____yes _____no

   If yes, how many? _____

5. To the nearest thousand dollars, what was your total payroll for the year 1972? _____

6. Out of each dollar of your receipts in 1972, how much do you estimate you paid out for:

   _____ a. Labor.
   _____ b. Merchandise.
   _____ c. Utilities (including rent).
   _____ d. Equipment.
   _____ e. Taxes.

7. Please estimate what percentage of all your business purchases in 1972 were made in:

   _____ a. The 11 westernmost counties of North Carolina,

i.e., Buncombe, Cherokee, Clay, Graham, Haywood, Henderson, Jackson, Macon, Madison, Swain and Transylvania Counties (see map). If more than 25% of your purchases came from any one of these counties, please underline that county.

_____ b. Elsewhere.

100% c. Total (a plus b must equal 100%).

8. To the nearest thousand dollars, how much sales tax did you pay to the State of North Carolina in 1972? _____

_____

9. Please estimate below the level of your total sales during 1972. (Please check the category which applies).

_____ a. Less than $25,000.
_____ b. $25,000 - $49,999.
_____ c. $50,000 - $74,999.
_____ d. $75,000 - $99,999.
_____ e. $100,000 - $249,999.
_____ f. $250,000 - $499,999.
_____ g. $500,000 - $749,999.
_____ h. $750,000 - $999,999.
_____ i. $1,000,000 or more.

10. Please estimate what percentage of your sales in 1972 were to:

_____ a. Tourists.
_____ b. Non-tourists.
100% c. Total (a plus b must equal 100%).

Of your 1972 sales to tourists, please estimate the percentage to out-of-state tourists. _____

2. SECOND-HOME DEVELOPMENT FIRMS SURVEY FORM

CONFIDENTIAL

-Survey of Second-Home Development Firms-

1. In what county are you located? _____

2. Type of Business (Please check one which best describes firm).

_____ a. Land Development Firm.
_____ b. Land and Home Development Firm.
_____ c. Planned Recreation Community Development Firm.
_____ d. Other Please specify. _____

3. How many full-time employees do you have? _____

4. To the nearest thousand dollars, what were your total outlays for the year 1972? _____

What percentage of these outlays were for payrolls? _____

LAND DEVELOPMENT FIRMS ONLY (Question 2.a.):

5. a. How many platted sites are in this development? _____

b. How many of these sites have been sold? _____
How many of these sites were sold in 1972? _____
What percentage of the sites which have been sold would you estimate are owned by residents of the Piedmont and Coastal areas of the State of North Carolina and of other states? _____

c. What is the average selling price per site? _____

d. Please estimate what percentage of the improvements (for example, landscaping and construction of access roads) made to these sites are contracted from firms in

_____(1) The 11 westernmost counties of North Carolina, i.e., Buncombe, Cherokee, Clay, Graham, Haywood, Henderson, Jackson, Macon, Madison, Swain and Transylvania Counties (see map). If more than 25% of these services purchased come from any one of these counties, please underline that county.

_____(2) Elsewhere.

e. Out of each dollar of your receipts from land sales in 1972, how much do you estimate you paid out for:

_____(1) Land.
_____(2) Labor.
_____(3) Payments to firms constructing improvements.
_____(4) Interest charges.
_____(5) Taxes.

LAND AND HOME DEVELOPMENT AND PLANNED RECREATION COMMUNITY FIRMS ONLY (Questions 2.b., 2.c.):

6. a. How many platted sites are in this development?_____

b. How many of these sites have been sold?_____
How many of these sites were sold in 1972?_____
What percentage of the sites which have been sold would you estimate are owned by residents of the Piedmont and Coastal areas of the State of North Carolina and of other states?_____

c. Which of the following types of housing are found in this development (Please check all categories that apply)?

_____(1) Single-family homes.
_____(2) Condominiums.
_____(3) Apartments.
_____(4) Other. Please specify._____

d. For each category checked in Question 6.c. above, please provide the following information:

	Total Standing Units	Units Added in 1972	Average Selling Price/Unit (Excluding Land)	Average Rent Rate/Unit/ Month
Single-family	_____	_____	_____	_____
Condominiums	_____	_____	_____	_____
Apartments	_____	_____	_____	_____
Other	_____	_____	_____	_____

e. For units which you rent and/or for units which you rent for others, to the nearest thousand dollars please estimate total rental receipts for the year 1972._____
What, do you estimate, was the average length of stay for renters of dwellings in your development in 1972?_____

f. Please estimate what percentage of the improvements (for example, landscaping, construction of access roads, provision of utilities, and building construction) to these sites are contracted from firms in:

_____(1) The 11 westernmost counties of North Carolina, i.e., Buncombe, Cherokee, Clay, Graham, Haywood, Henderson, Jackson, Macon, Madison, Swain and Transylvania Counties (see map). If more than 25% of these services purchased come from any one of these counties, please underline that county.

_____(2) Elsewhere.

g. Out of each dollar of your receipts in 1972, how much do you estimate you paid out for:

_____(1) Land.
_____(2) Labor.
_____(3) Payments to firms constructing improvements.
_____(4) Interest Charges.
_____(5) Taxes.

h. Which of the following facilities are found in this development (Please check all facilities that are found)?

_____(1) Shopping Center.
_____(2) Convenience Store.
_____(3) Restaurant.
_____(4) Motel/hotel.
_____(5) Golf course.
_____(6) Ski slope.
_____(7) Swimming pool.
_____(8) Stable.
_____(9) Tennis court.
_____(10) Marina.
_____(11) Club house.
_____(12) Lake.
_____(13) Play park.
_____(14) Camping area.
_____(15) Theme park.
_____(16) Other. Please specify._____

TABLE 1: Compiled Universe of Recreation-Tourism-Second-Home-Development Firms, 11-County North Carolina Southern Highlands Region, by County of Location and Major Business Group, Summer 1973

Business Group / County of location	Motels and Hotels	Eating and Drinking Places	Service Stations	Camp-grounds[a]	Recreation/ Amusement Places[a]	Second-Home Developments[b]	Other[c]	Total
Buncombe	61	147	148	2	11	-	23	392
Cherokee	11	20	31	-	3	1	2	68
Clay	2	4	10	-	1	1	1	19
Graham	5	5	12	1	2	-	2	27
Haywood	29	48	55	5	4	1	14	157
Henderson	31	36	49	1	5	-	13	136
Jackson	17	19	25	9	5	1	3	79
Macon	19	19	29	6	14	4	9	103
Madison	1	7	25	-	-	1	1	35
Swain	16	10	12	9	5	-	-	52
Transylvania	6	15	26	2	1	3	2	55
Total	198	330	422	35	51	12	70	1,118

[a]Firms in this business group represent commercial firms which had an annual 1971-72 attendance of 5,000 persons or more.

[b]Firms in this business group represent firms which controlled 30 or more sites and/or homes, condominiums, or apartments.

[c]Firms in this business group include gift shops and other firms not classified elsewhere which cater to the tourist trade.

SOURCE: North Carolina Department of Revenue Sales Tax Listing, North Carolina Outdoor Recreation Areas Inventory, Independently-Compiled Listing of Second-Home-Development Firms.

TABLE 2: Number of Establishments Offering Camping and Recreation/ Amusement Facilities by Type of Ownership and County of Location, 11-County North Carolina Southern Highlands Region, 1966 and 1971-72

NC Southern Highlands County/Year	Type of Ownership: Government	Commercial	Private and Other	Total
Buncombe				
1966	12	41	26	79
1971-72	14	13	23	50
Cherokee				
1966	5	8	2	15
1971-72	5	5	2	12
Clay				
1966	3	4	1	8
1971-72	5	3	-	8
Graham				
1966	4	12	3	19
1971-72	9	16	2	27
Haywood				
1966	7	16	3	26
1971-72	9	10	4	23
Henderson				
1966	-	30	12	42
1971-72	3	11	16	30
Jackson				
1966	4	23	7	34
1971-72	5	28	2	35
Macon				
1966	7	25	9	41
1971-72	9	22	2	33
Madison				
1966	2	7	2	11
1971-72	3	5	1	9
Swain				
1966	4	25	7	36
1971-72	5	29	4	38
Transylvania				
1966	4	10	22	36
1971-72	13	12	20	45
Total				
1966	52	201	94	347
1971-72	80	154	76	310

SOURCE: North Carolina Outdoor Recreation Areas Inventory, 1966 and 1971-72.

TABLE 3: Firms Servicing the Recreation-Tourism-Second-Home Development Market in the 11-County North Carolina Southern Highlands Region, by Business Group, 1959 and 1971

Business Group	1959	1971
Construction	433	546
Eating and Drinking Places	270[a]	305[a]
Hotels and Lodging Places	190[a]	190[a]
Gasoline Service Stations	280[a]	290[a]
Real Estate	150[a]	170[a]

[a]Estimated.

SOURCE: Computed from U. S. Bureau of the Census, U. S. Department of Commerce, County Business Patterns, 1959, 1971.

TABLE 4: Seasonal and Migratory Vacant Housing Units, 11-County North Carolina Southern Highlands Region, 1970

County	Seasonal and Migratory Vacant Housing Units	Percentage Vacant of Total
Buncombe	1,111	2.2
Cherokee	15	0.3
Clay	141	6.8
Graham	262	10.4
Haywood	612	4.1
Henderson	1,233	7.6
Jackson	591	8.2
Macon	2,060	24.4
Madison	10	0.2
Swain	265	8.5
Transylvania	451	6.4
Total	6,751	

SOURCE: U. S. Bureau of the Census, U. S. Department of Commerce. Detailed Housing Characteristics, N. C., 11C(1)-B-35, April, 1972.

TABLE 5: Employment in Selected Types of Businesses Servicing the Recreation-Tourism-Second-Home-Development Market, 11-County North Carolina Southern Highlands Region, 1970 and 1960

Type of Business	1970 Employment	Percentage of Total Employment	1960 Employment	Percentage of Total Employment
Construction	11,135	8.7	7,585	7.3
Eating and Drinking Places	2,428	1.9	2,038	2.0
Hotels and Lodging Places	2,630[a]	2.1	1,680[a]	1.6
Gasoline Service Stations	1,110[a]	0.9	990[a]	0.9
Real Estate	320[a]	0.2	330[a]	0.3
Amusement Services	1,140[a]	0.9	250[a]	0.3

[a]Estimated.

SOURCE: U. S. Bureau of the Census, U. S. Department of Commerce, General Social and Economic Characteristics, North Carolina, PC(1)-C-35 N. C., April, 1972; April, 1962.

TABLE 6: Estimated Average Annual Pay per FICA-Covered Employee in Selected Types of Businesses Servicing the Recreation-Tourism-Second-Home-Development Market, 11-County North Carolina Southern Highlands Region, 1971

Type of Business	Region Average	State Average	Region as Percent of State	National Average	Region as Percent of Nation
Construction	$4,798	$5,768	83.2	$8,620	55.7
Eating and Drinking Places	2,431	2,660	91.4	2,907	83.6
Hotels and Lodging Places	2,835	2,952	96.0	3,630	78.1
Gasoline Service Stations	3,706	3,772	98.2	3,807	97.4
Real Estate	3,058	5,016	61.0	5,432	56.3
Amusement Services	3,770	3,724	101.2	4,524	83.3

SOURCE: Computed from U. S. Bureau of the Census, U. S. Department of Commerce. County Business Patterns, 1971.

TABLE 7: Firms Surveyed for North Carolina Southern Highlands Recreation Study, by County of Location and Business Group, Summer 1973

Business Group County of Location	Motels and Hotels	Eating and Drinking Places	Service Stations	Camp-grounds	Recreation/ Amusement Places	Second-Home Developments	Other	Total
Buncombe	4	7	6	-	2	-	1	20
Cherokee	1	-	1	-	-	1	-	3
Clay	-	-	1	-	-	1	-	2
Graham	-	-	-	-	-	-	-	-
Haywood	3	3	3	-	3	1	-	13
Henderson	-	3	3	-	2	-	1	9
Jackson	2	2	2	3	1	1	-	11
Macon	1	1	-	1	2	4	1	10
Madison	-	-	-	-	-	-	-	-
Swain	-	-	-	1	3	-	-	4
Transylvania	-	-	2	-	-	3	1	6
Total	11	16	18	5	13	11	4	78

TABLE 8: Estimated Sales to Tourists of Motels and Hotels, Eating and Drinking Places, and Gasoline Service Stations, 11-County North Carolina Southern Highlands Region, 1972

1972 Tourist Sales Business Group	Sales To In-State Tourists ($)	Sales To Out-of-State Tourists ($)	Total Tourist Sales ($)
Motels and Hotels	8,973,360	21,288,960	30,262,320
Eating and Drinking Places	9,738,300	13,655,400	23,393,700
Gasoline Service Stations	5,827,820	6,140,100	11,967,920
Total	24,539,480	41,084,460	65,623,940

TABLE 9: Estimated Employment, Payrolls, and Tax Payments Arrtibuted to Tourist Sales for Motels and Hotels, Eating and Drinking Places, and Gasoline Service Stations, 11-County North Carolina Southern Highlands Region, 1972

Business Group	Total Employment		Total Payroll ($)	Total Tax Payments ($)
	Full-time	Part-time		
Motels and Hotels	1,110	3,810	7,077,500	1,561,110
(Annual full-time equivalents)[a]	(1,945)			
Eating and Drinking Places	1,520	340	5,895,000	928,370
(Annual full-time equivalents)[a]	(1,580)			
Gasoline Service Stations	350	80	1,609,080	590,490
(Annual full-time equivalents)[a]	(380)			
Total	2,980	4,230	14,581,580	3,079,970
(Annual full-time equivalents)[a]	(3,905)			

[a]See text for explanation of annual full-time equivalents.

TABLE 10: Distribution of Estimated Total Non-Labor Purchases or Outlays[a] Attributed to Tourist Sales of Motels and Hotels, Eating and Drinking Places, and Gasoline Service Stations, 11-County North Carolina Southern Highlands Region, 1972

Business Group	Non-Labor Outlays Made in Region ($)	Non-Labor Outlays Made Elsewhere ($)	Total Non-Labor Outlays ($)
Motels and Hotels	6,320,080	990,850	7,310,930
Eating and Drinking Places	13,604,060	1,193,720	14,797,780
Gasoline Service Stations	9,047,380	306,500	9,353,880
Total	28,971,520	2,491,070	31,462,590

[a]Total non-labor outlays are defined as outlays for merchandise, utilities, and equipment.

TABLE 11: Estimated Sales to Tourists, Total Employment, Total Payrolls, Total Tax Payments, and Total Non-Labor Outlays Attributed to Tourist Sales, Selected Business Groups, 11-County North Carolina Southern Highlands Region, 1972

Business Group	Tourist Sales - ($)			Employment		Payrolls ($)	Tax Payments ($)	Non-Labor Outlays[a] - ($)		
	In-State Tourists	Out-of-State Tourists	Total	Full-time	Part-time			In Region	Outside Region	Total
Campgrounds (annual full-time equivalents)[b]	209,420	680,890	890,310	90	Negligible (50)	178,070	51,620	568,000	Negligible	568,000
Recreation/ Amusement Places (annual full-time equivalents)[b]	1,884,580	7,614,250	9,498,830	390	1,480 (580)	3,509,060	857,770	3,036,050	1,289,160	4,325,210
Other (annual full-time equivalents)[b]	300,460	828,970	1,129,430	25	10 (30)	161,730	61,390	557,700	110,080	667,780
Total (annual full-time equivalents)[b]	2,394,460	9,124,110	11,518,570	505	1,490 (660)	3,848,860	970,780	4,161,750	1,399,240	5,560,990

[a]Non-labor outlays are defined as outlays for merchandise, utilities, and equipment.
[b]See text for explanation of annual full-time equivalents.

TABLE 12: Estimated First-Round Impact Upon Selected Measures of Economic Activity per $100 of Sales Made to Tourists by Selected Business and Commercial Firms, 11-County North Carolina Southern Highlands Region, 1972

Type of Impact Business Group	Employment (Jobs)	Payrolls ($)	Taxes ($)	Non-Labor Outlays Within Region ($)	Non-Labor Outlays Outside Region ($)
Motels and Hotels	.006	24	5	21	3
Eating and Drinking Places	.007	25	4	58	5
Service Stations	.003	13	5	74	2
Campgrounds	.006	20	6	64	Negligible
Recreation/ Amusement Places	.006	37	10	32	14
Other	.003	14	5	50	9

TABLE 13: Estimated First-Round Impact Upon Selected Measures of Economic Activity per Sale of a Second Home and Homesite Valued at $45,500 to a Non-Resident, 11-County North Carolina Southern Highlands Region, 1972

Employment (Jobs)	Payrolls ($)	Taxes ($)	Outlays for Improvements Made in Region ($)	Outlays for Improvements Made Outside Region ($)
2	12,300	1,160	18,200	2,070

TABLE 14: Retail Sales per Capita, Gasoline Service Stations and Eating and Drinking Places, 11-County North Carolina Southern Highlands Region, 1967

County	1967 Retail Sales ($1,000) Gas. Ser. Stations	1967 Retail Sales ($1,000) Eating & Drink. Places	1970 Population	1967 Retail Sales/Capita ($) Gas. Ser. Stations	1967 Retail Sales/Capita ($) Eating & Drink. Places
Buncombe	20,389	13,273	145,056	144	92
Cherokee	1,327	371	16,330	81	23
Clay	481	(D)[1]	5,180	93	--
Graham	526	377	6,562	80	58
Haywood	4,654	3,174	41,710	112	76
Henderson	4,132	2,470	42,804	96	58
Jackson	2,132	636	21,593	99	30
Macon	2,491	613	15,788	158	39
Madison	1,321	300	16,003	82	19
Swain	1,609	778	8,835	182	88
Transylvania	1,208	627	19,713	61	32
Region	40,270	22,619	339,574	119	67
North Carolina	391,627	301,157	5,082,036	77	59

[1]Disclosure problems prevented data from being published.

SOURCE: U. S. Bureau of the Census. Census of Business, 1967, Vol. II, Retail Trade-Area Statistics, Part 2, Iowa to North Carolina. Washington: Government Printing Office, 1970.

U. S. Bureau of the Census. U. S. Census of Population: 1970, Number of Inhabitants, Final Report PC(1)-A35, North Carolina. Washington: Government Printing Office, 1971.

Appendix D

LAND USE MATRIX

LAND USE MATRIX GUIDELINE

The matrix table titled Land Use Guideline Model is a tool for considering existing land uses and alternatives of future land uses in the region.

The growing demands and needs of man for land uses in his environment may be generally grouped in categories of development; production and protection. These are shown on the left side of the matrix and then divided into sub-categories.

The matrix shows the relationships of various types of land uses to natural geographic locations as follows:

(1) Compatibility (and incompatibility) between the various uses;
(2) Natural Determinates indicating various degrees of suitability or conflicting limitations with the resource base for a given location for a particular type of use;
(3) Impacts, or the lack of adverse impacts, resulting from a given land use in a particular location. These are shown in five degrees ranging from none (little or no impact) to severe (adverse impact); and
(4) Regional system maps - I through VIII showing: the regional inventory of existing uses and transportation systems; interpretations of Land Use Limitations (suitability for development or production); and protective environments which should be managed in open space uses for environmental quality maintenance, natural recreation and historical values of national, state and regional significance.

The matrix is to be used in conjunction with the regional systems maps as a tool for the following:

-- Development of Land Use Policy;
-- Managements consideration of alternative resource allocation decisions;
-- Continuing planning in harmony with the lands' natural regional suitability patterns for use and management in protection, production and development or in costly conflict with them;
-- Guiding growth and development; agriculture production and forests; protective environments & recreation; and appropriate transportation systems in concert with their natural regional patterns of land use;
-- Determining the general location of major public investments such as: recreation, conservation, and environmental corridor protection; transportation; water quality,

supply and resource development alternatives; planned growth in urban areas shaped in part by public investment; sewer and water system needs.

-- Programming and budgeting a system of scenic roads and trails in harmony with regional conservation and development patterns;

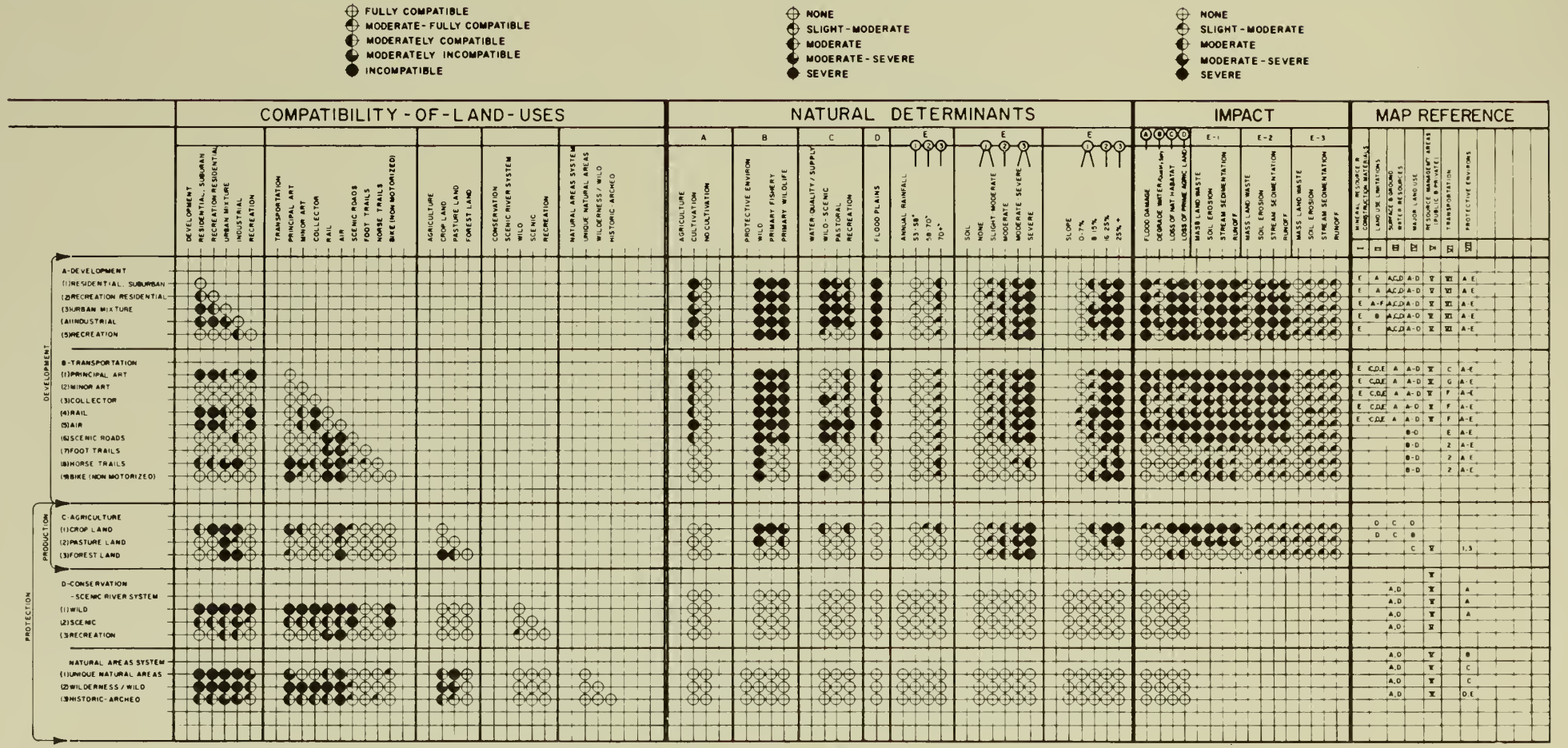
-- Minimizing conflicts in the public investment process while optimizing social and economic development with environmental quality maintenance goals.

County and City Governments may utilize the same matrix and regional maps to develop compatibly within the natural regional framework plan. Essentially the same principles and process shown on this matrix may be applied in greater detail to the county/city land use plans; and in turn to major site plans within their respective jurisdictions.

Georgia has developed a regional composite map titled Capabilities and Constraints which shows the natural suitability patterns ranging from: most limited lands for conservation and open space to most suitable lands for growth and development; and the consideration of prime agriculture land in an agriculture district.

joint agreement by Georgia, North Carolina, and South Carolina with the cooperation and assistance of the Appalachian Regional Commission and the Bureau of Outdoor Recreation.

LAND USE GUIDELINES MODEL



EXPLANATION: (INTERCOMPATIBILITY OF LAND USES)

COMPATIBILITY– THE DEGREE TO WHICH LAND USES OR MANAGEMENT PRACTICES ARE CAPABLE OF EXISTING TOGETHER IN HARMONY WITH THE NATURAL CHARACTERISTICS AND PROCESSES AT A GIVEN RESOURCE BASE LOCATION. NATURAL VALUES OF THE RESOURCE MAINTAINED; A LAND USE OR MANAGEMENT PRACTICE WHICH DOES NOT ALTER OR REDUCE THE NATURAL FUNCTIONS OF THE NATURAL RESOURCE.

A) FULLY COMPATIBLE– THOSE LAND USES WHICH DO NOT CONFLICT SIGNIFICANTLY WITH EACH OTHER, NOR DAMAGE THEIR SITE OR THE LARGER SURROUNDING AREA.

B) MODERATE-FULLY COMPATIBLE- THOSE LAND USES IN WHICH CONFLICTS BETWEEN USES AND THE LAND PRODUCE LITTLE CONFLICT AS A DETERMINING FACTOR IN LOCATION.

C) MODERATELY COMPATIBLE- THOSE LAND USES IN WHICH CONFLICTS ARE GENERALLY UNAVOIDABLE BUT CAN BE MINIMIZED BY PROPER DESIGN, DEVELOPMENT AND LAND TREATMENT IN STAGES.

D) MODERATELY INCOMPATIBLE- THOSE LAND USES IN WHICH CONFLICTS ARE UNAVOIDABLE, AND WHERE DESIGN CONSIDERATIONS HAVE LIMITED POTENTIAL FOR AMELIORATION. THESE CONFLICTS ARE OFTEN ASSOCIATED WITH MANMADE DEVELOPMENTS IN SENSITIVE RESOURCE AREAS WHOSE MAJOR FUNCTIONS ARE ENVIRONMENTAL QUALITY MAINTENANCE.

E) INCOMPATIBLE- THOSE LAND USES IN WHICH CONFLICTS ARE BOTH UNAVOIDABLE AND SERIOUS TO THE EXTENT THAT A NATURAL RESOURCE SYSTEM IS SERIOUSLY DAMAGED; OR ECOLOGICAL, PRODUCTIVE, OR INVESTMENT VALUES ARE IMPOSSIBLE TO PROTECT.

MATRIX ADAPTED FROM DESIGN WITH NATURE, IAN L. MCHARG, 1964

Figure D-1

Appendix E

SCENIC ROAD STANDARDS

SCENIC TRAIL STANDARDS

SCENIC ROADS

The selection or construction of a route as a scenic highway should be based on the criteria that such a facility provides people with an opportunity to enjoy an outstanding travel experience. Therefore, in addition to providing a well engineered roadway, a scenic highway must have distinguishing characteristics of natural beauty or other elements which cause it to stand out from other roadways.

Elements essential to the development of scenic highways include:

Quality - The attractiveness of a roadway for a pleasurable driving experience is directly related to the scenic, historical or cultural characteristics found along the highway corridor. These characteristics should be of such quality that they merit state or National recognition and are of sufficient interest to be an attraction in itself. The corridor should provide frequent opportunities for the development of complementary roadside facilities adjacent to the roadway.

Variety - A variety of terrain, types of landscape and land-use activity should be a part of the highway corridor. These should be unique elements not generally found in highway travel.

Accessibility - The highway should provide access to or links between existing or proposed parks, other public recreation areas, or points of scenic, cultural, historical or scientific interest. On the other hand access to the scenic corridor should be limited to maintain the character of the facility.

Location and Geographic Distribution - The distribution of scenic highways should cover as wide a geographical area as possible. The scenic corridor may often parallel the approximate alignment of major state or interstate routes or swing in a loop around such routes. This will afford the motorist an opportunity to vary his driving experience with a more leisurely, relaxing trip.

Design and Safety - Besides providing an exciting visual experience, the scenic highway should have a geometric design which exhibits graceful, ground-fitting horizontal and vertical alignment and which accommodates the anticipated traffic volumes safely and efficiently.

Adaptability to Development - The environs surrounding the roadway should be relatively free of incompatible commercial or restrictive development within the minimum right-of-way width. Development within the scenic corridor which

is found to be incompatible should be eliminated, by-passed, or screened from view. Any addition request for such development along or within the corridor should be prohibited.

Compatibility - The coordination of scenic highways with other outdoor recreation, aesthetics, and conservation objectives is essential. The highway should not contribute to the disruption of wilderness areas, fish, wildlife or nature preserves. Its location should be compatible with and conducive to the enjoyment of scenic, geologic, cultural, or historic features.

Competing Uses - The utilization of the scenic highway by other highway users should not interfere with the primary recreational objective of the roadway. Therefore other use oriented traffic should:

(1) Be small enough in volume to be of little effect on recreational travel.
(2) Occur at a time when major recreational travel is not using the facility.
(3) Be accommodated with additional capacity and design features to provide for the safe and efficient movement of the mixed traffic.

Naturally there are certain standards such as roadway widths, number of lanes, maximum grades, minimum curvatures, surfacing criteria, design speed, etc., which are necessary as guides in constructing scenic highways. Strict compliance with these standards may not be desirable in as much as the primary objective of providing a highly scenic roadway may be destroyed. Designs and specifications for scenic roads should generally follow the requirements set-forth in the American Association of State Highway Officials. A Policy on Geometric Design of Rural Highways. On some occasions the designer may find that strict compliance with the AASHO Guide is possible only by severely altering the surrounding environs. However, through the use of a lesser but equally safe design, the desired objectives can be reached. An excellent supplemental guide to the AASHO standards is the U. S. Forest Service Transportation Engineering Handbook. Criteria set forth in these guides should serve as the basis for geometric design for all scenic highways. There exist no set of standards or criteria which define a scenic corridor. The judgement as to what is or is not scenic is in the eye of the observer. The development of a scenic recreational highway facility must therefore be a culmination of ideas and experiences of professionals in the fields of forestry, botany, geology, ecology, recreation, engineering landscape architecture, and similar professions.

The following paragraphs include a general discussion of the various geometric design elements involved in highway design.

The combination of these elements is the key to providing a memorable driving experience. If scenic highways are to become an integral part of the topography old methods of roadway alignments must be discarded.

HORIZONTAL AND VERTICAL ALIGNMENT

The traditional practice of establishing tangents and then connecting them with short circular curves produces the frequent zig-zag alignment which is offensive to the driver and the environment. The landscape itself should dictate the roadway location. A continuous curvilinear horizontal alignment provides a more pleasing driving experience. The basic circular arcs combined with transitional curves, either spiral or circular aid in revealing the landscape. Tangent roadway sections should be included as short transitions only when necessary to lead the driver's eye toward a spectacular view or for increased safety. It may be desirable to provide an extra lane width for passing especially on uphill sections rather than providing long tangents.

The vertical alignment of the roadway consists of the inclined straight line called the grade or vertical tangent and the vertical curve, either crest or sag. As with horizontal alignment, long tangent sections with short vertical curves are undesirable in the vertical plan. A semicontinuous curvilinear alignment provides a more pleasing visual experience. Such an alignment can be obtained through the use of vertical curves of varying lengths and radii, by lengthening the curves beyond the minimum safe design and by shortening the lengths of straight line grades.

To obtain the desired unity of plan and profile, the continuous curvilinear design of the horizontal alignment must be integrated effectively with that of the vertical alignment. The alignment should coincide closely and contain curves of somewhat similar length thereby preventing a long horizontal curve from being combined with a short vertical curve creating a rollercoaster effect.

A well-coordinated roadway alignment cannot occur by chance, but requires thorough preliminary planning from both the functional and visual viewpoint. Perspective drawings, diagrams and models may be needed to solve the various design problems.

EMBANKMENTS AND EXCAVATION

The treatment of embankments and excavations created by the construction of a highway must be carefully considered in order that the facility can be molded into the terrain and become a harmonious feature of the existing landscape. Flat, rounded slopes and careful transitioning from cut to fill sections reduces

the scarred appearance often associated with roadway construction. In areas of steep, rugged terrain or where particular soil or rock conditions require near vertical slope construction various types of cribbing, retaining walls, rip-rapping or the purposeful exposure of natural strata and folds may be used.

The removal of a left-over hill on the downhill side of a cut slope between the road and a natural slope may provide a smoother landscape design and open an area for an attractive vista.

The AASHO Policy on Geometric Design of Rural Highways states that "a uniform slope through a cut or fill section often results in a formal or stilted appearance. This can be softened by flattening the slopes on the ends where cut or fill is light, and gradually steepening it towards the controlling maximum slope on the heavier portion of the cut or fill. On short cut or fill sections the result may be one of continuous longitudinal rounding, whereas on sections of substantial length the effect will be one of funneling. The transitioning of side slopes is especially effective at ends of cuts when combined with an increased lateral offset of the drainage channel and a widened shoulder."

BRIDGE AND DRAINAGE STRUCTURES

The design of bridges on or along scenic highways should project a light, graceful and open appearance. The bridge structure should be an integral part of the roadway character with light airy structural members placed below the roadway surface when possible. Support columns and piers should be minimum in number and placed so as not to restrict the view. The bridge railings should also be constructed to provide safety and guidance without obstructing scenery.

Where ever possible maximum utilization of native resources such as local stone, covered bridges, natural drainage channels, etc., should be incorporated into the roadway design. The design and installation of small drainage structures, should coordinate with the curvilinear alignment of the roadway. These structures must offer minimal resistance to the natural stream channel. All culvert ends should be treated to prevent erosion and to present a finished or natural appearance through the use of native materials. Minor water channels crossing slow speed scenic roadways may be negotiated on a well designed "ford". Such fording of stream channels can heighten the scenic quality of the roadway and be functionally acceptable.

LANDSCAPING OF ROADWAY RIGHT-OF-WAY

Careful planning of the immediate landscape around the roadway

both before and after construction is essential. Thinning of existing vegetation and judicious planting of native species along roadside forests will provide variety in the landscape.

In general, plantings should suggest an informal natural setting of largely native varieties. They may function as elements to reduce headlight glare, to screen incompatible land uses, to reduce noise, to focus and direct the drivers' eye and to act as natural crash barriers and snow fences.

Low-growing ground cover should be selected with local environmental conditions in mind. The selection of tenacious, sod-forming grasses tolerant of chemical treatment is essential.

EXISTING HIGHWAYS

The guidelines discussed above are not fully applicable to the conversion of existing roadways to scenic highways. However, these guides should be considered as goals to work towards where economically and physically feasible. Undoubtedly, the greatest design challenge exists in the remodeling of an existing highway which has a scenic environment but requires roadway revamping to conform to recognized scenic concepts.

SCENIC EASEMENTS AND RIGHT-OF-WAYS

The scenic highway right-of-way is that portion of land on either side and immediately adjacent to the roadway. The right-of-way may vary in width with a recommended minimum of 100 feet on either side of the roadbed. Within this zone the agency whose responsibility it is to maintain the highway must exert strict control over its use. Utilization of the right-of-way should be limited to only those activities which are necessary for maintenance and safe movement of traffic.

A scenic highway corridor includes two elements - the roadway and its right-of-way and the scenic and recreation areas traversed and extending out to variable distances beyond the right-of-way. Enhancement of the travelers' recreation experience is the primary consideration in locating and developing a road within a scenic corridor.

Scenic corridors are the fourdation of any program of scenic roads and parkways. Within such a corridor the quality of the landscape and the recreation opportunities, existing or potential, must give the user an outstanding travel experience. A scenic road can offer little promise or purpose without an adequate scenic corridor.

A scenic corridor includes those elements which make-up outstanding scenic vistas and the related facilities for enjoying them. These may be within the immediate environs of the roadway or they may be part of a sweeping distant panarama.

The scenic corridor may include a variety of features viewed from a succession of vantage points along the roadway. At various points these features may be visible in the foreground, the middle ground or the background of a particular view.

It is not practical nor economical to control all areas which might be included in a scenic corridor. However, the landscape can be effectively managed or modified for the desired results by working with the foreground area. This can change the dimensions of a scenic corridor and can effectively increase the aesthetic quality of the surroundings.

A screen of trees and shrubs can narrow the corridor at particular points by permanently blocking from view objectionable features of the landscape. In heavily forested areas careful timber harvesting can open "windows" which greatly extend the field of vision. Overlooks can be constructed, road segments relocated, and spur roads added to obtain a desired change in the depth of the corridor from the road.

Table I provides some suggestive standards which might be used as a guide for development within a scenic corridor. Keeping in mind that roadside development and residential subdivisions are basically incompatible with scenic highways careful consideration of the impact of such development must be made. The existance of an industrial or agricultural processing center may be of sufficient interest, however, to allow its incorporation into the scenic corridor.

Safeguarding the scenic highway corridor through which the roadway passes is essential. Without adequate protection, the character of the corridor in time may be altered enough to diminish the highway's recreational value. Table II provides a summary of methods which can be utilized in protecting the scenic corridor. The agency which has jurisdiction over the roadway and its environs' should carefully consider the most effective means of preserving the scenic values of the land within the corridor.

In summary, it can be concluded that the objective of scenic highway development must be the ultimate goal in the planning and design of the roadway. From the delineation of a scenic corridor to the maintenance and operation of the roadway and its environs, the recognized principals of planning and design of scenic highways should be the ultimate goal.

Table I
PROPOSED SCENIC HIGHWAY PERFORMANCE STANDARDS

	MINIMUM LOT SIZE			MINIMUM YARD SETBACK REQUIREMENTS				
	Having Septic Tank & Individual Water	Having Septic Tank & City or Community Water	Having City Sewerage & Water	Lot Width	Front* Yard	Side Yard	Rear Yard	MAXIMUM HEIGHT
Residential								
Single Family	1 acre	25,000 sq. ft.	20,000 sq. ft.	100 ft.	100 ft.	15 ft.	15 ft.	35 ft.
Multi-Family	1 acre	25,000 sq. ft.	12,000 + 3,000 for each dwelling unit in excess of 2 units	100 ft.	100 ft.	15 ft.	15 ft.	35 ft.
Group Rental Cottages	1 acre	1 acre	1 acre	100 ft.	100 ft.	15 ft.	15 ft.	35 ft.
Mobile Home Parks	5 acres	5 acres	5 acres	150 ft.	100 ft.	15 ft.	15 ft.	35 ft.
Individual Mobile Home (With no more than 7 units per acre	1 acre	25,000 sq. ft.	20,000 sq. ft.	100 ft.	100 ft.	15 ft.	15 ft.	35 ft.
Commercial	1 acre	1 acre	1 acre	100 ft.	100 ft.	30 ft.	30 ft.	40 ft.
Planned Shopping Center	2 acres	2 acres	2 acres	200 ft.	100 ft.	25 ft.	25 ft.	45 ft.
Public & Semi-Public	2 acres	2 acres	2 acres	100 ft.	100 ft.	30 ft.	30 ft.	None
Agricultural								
Packing houses for fruit products	2 acres	2 acres	2 acres	200 ft.	100 ft.	30 ft.	30 ft.	30 ft.
Stand or shelter for the sale and/or display of seasonal agricultural produce	1 acre	1 acre	1 acre	200 ft.	100 ft.	15 ft.	15 ft.	20 ft.
Industry, Wholesale & Terminal Facilities	All industrial, wholesale, and transportation terminal facilities are subject to review by _____ before construction is permitted. The chief measure of acceptability for such uses is whether they are compatible with the scenic environment or the highway. No industry, wholesale or terminal facility that involves the assembly or storage of any junk or salvage operation is acceptable. Also no industry, wholesale or terminal facilities that creates in association with its operation noise, vibration, smoke, gas, fume, odor, dust, fire, hazard, and dangerous radiation that is deemed injurious or abnoxious or is considered to be a nuisance beyond the premises is acceptable.							

*Front yard setbacks are measured from the right-of-way line.

Table II

EFFECTIVENESS, COSTS, AND EASE OF ADMINISTRATION OF DEVICES TO PROTECT SCENIC CORRIDORS

MECHANISM	EFFECTIVENESS	COST	EASE OF ADMINISTRATION	COMMENTS
Wider than usual right-of-way.	Could be most effective, but the area would need to be very limited.	Cost would be very high, probably prohibitive.	Easy to administer because control would be absolute.	Private property owners would probably resent "excessive" acquisition by government.
Outright acquisition of either inner or outer zones of corridor.	Very effective if authorized and permitted by courts.	Costs could be burdensome, even prohibitive.	No special problems of administration except contesting some antagonism against public authority "being in the real estate business."	
Fee acquisition and leaseback.	Very effective.	Very costly and requires large capital outlays which are later repaid at least partially.	May be difficult to sell property owners on the the idea. Extends the public domain considerably.	Facilitates maintenance. Keeps the corridor "alive."
Acquisition of scenic or conservation easements.	Could be quite effective if right king of easement acquired.	Cost would be reasonable in some cases, considerable in others, especially in or close to urban areas. Costs in these instances might be so great that outright acquisition is more reasonable.	No particular difficulties except one of educating the public.	
Zoning--at local level.	Only as effective as zoning is. Subject to pressure.	No cost except that of administering the program.	Same difficulties as those associated with zoning today and maybe a few more because this would be a new acquisition.	Generally, not a very happy solution.
Zoning--at State level.	Very limited actual use. Its legal fate is largely unknown. If politics is kept out of administration, might be reasonably effective.	No costs other than administrative costs.	Administration would be subject to the same detail as local zoning.	Hawaii is using statewide zoning effectively. The protection of the State capitals of Kansas and Oklahoma rests upon State use of zoning powers.

Table II (Cont'd.)

MECHANISM	EFFECTIVENESS	COST	EASE OF ADMINISTRATION	COMMENTS
Scenic highway corridor reservation--State level.	If sustained in courts as a valid exercise of police power, could be reasonably effective. Requires new legislation and a new legal concept. Has none of legal or regular encumbrances of zoning.	No costs except costs of administration of program.	Once the notion is clearly defined there should be no difficulties of administration. In fact, large areas could be so regulated with a minimum of public effort.	Well worth a try.
Special conservation or corridor districts.	Could be one of the most effective. But would be a broad new application of a relatively new device.	Negligible, administrative costs only.	No significant problems of administration.	Offers considerable promise.
Comprehensive planning.	Effective if applied in its best and broadest connotations.	Generally, only costs would be those of administration mechanisms are considered part of this process, as they might be.	Usual problems, which may be many, of a comprehensive planning approach.	
Restrictive code names.	Can be helpful in a small, limited area but should not be relied on for an entire scenic road project is more a supplement particularly in urban areas.	None, except small costs to property owners.	Handled privately, perhaps under government suspices.	

SOURCE: "A Proposed Program for Scenic Roads and Parkways", U. S. Department of Commerce, Washington, D. C., June, 1966.

References

A Policy on Geometric Design of Rural Highways, American Association of State Highway Officials, Washington, D. C., 1965.

Transportation Engineering Handbook, Amendment 11, U. S. Forest Service, Department of Agriculture, Washington, D. C., April 1973.

A Proposed Program for Scenic Roads and Parkways, U. S. Department of Commerce, Washington, D. C., June 1966.

Appendix F

SOUTH CAROLINA-SCENIC AND TRAIL HIGHWAYS SYSTEM-SOUTHERN HIGHLANDS STUDY AREA

SOUTH CAROLINA SOUTHERN HIGHLANDS SCENIC HIGHWAYS SYSTEM

In an effort to provide the public with an opportunity to explore the cultural, historical and natural resources of the region, a system of scenic highways is proposed. Through careful planning and design these facilities can serve as a complement to the land.

An analysis of the inventory data reported on in previous sections of this report were used with a knowledge of the region in establishing the scenic highway system. The system developed was divided into two categories. These included facilities which were recognized as having significant scenic qualities to merit national recognition and facilities of state or regional importance.

Although most of the Southern Highlands region of South Carolina possess unique natural resources of the state, very little of the region is of national significance from a recreation-oriented standpoint. It must be emphasized that the study area is of historical significance in the development of the Southern Appalachian Mountains and therefore is of regional importance. The mountains of South Carolina associated with the Blue Ridge contain numerous species of fauna and flora which are only found in the Southern Appalachians Region. For these reasons the mountains of South Carolina are of national importance.

Under study for several years, by the U. S. Department of Transportation, has been a study to extend the Blue Ridge Parkway from Beech Gap in North Carolina into the State of Georgia. From this extension, a spur into South Carolina has been proposed which would serve as a stimulant to the development of the South Carolina Scenic Highway System. To minimize roadway construction it is proposed that such a facility utilize existing highways with some modification and construction.

It is suggested that this extension of the Parkway could begin at or near the town of Cashiers, North Carolina and follow the existing alignment of State Route 107 into South Carolina through the Nantahala and Sumter National Forest. A new segment would need to be constructed from a point near the existing Oconee State Park to State Route 11 near the community of Tamassee, South Carolina. With the exception of the addition of guardrails, scenic overlooks and upgrading of bridges, no major construction improvements would be required for State Route 107.

State Route 11, which is proposed as the southern terminus of the Parkway extension in South Carolina, has been designated as a scenic highway by the State and has been included as an

element of the South Carolina Southern Highlands Scenic Highway System. This facility extends from Interstate 85 near Gaffney, South Carolina to West Union near Walhalla. Subsequent extension of this route to Interstate Route 85 at the Georgia-South Carolina State line is presently under contract. Figure F-1 shows the regional location of State Route 11 and the proposed Blue Ridge Parkway extension.

Also included in Figure 1 are the additional routes within the study area which are being recommended as scenic highways. The selection of these facilities are based upon: (1) scenic quality of the roadways and their adjacent environment, (2) their proximity to various points of natural, historical or cultural significance, and (3) physical characteristics of the roadway. Emphasis has been placed on providing a safe route capable of accommodating the anticipated demand with the least amount of new construction.

These routes located in the central and southern sections of the study area were selected on the basis of providing improved access and interconnection to existing or proposed recreational facilities. The predominant use of the land in this portion of the study area is oriented to an agrarian economy with numerous old homesteads of late nineteenth and early twentieth century vintage. The region, however, does not possess any unique natural land forms.

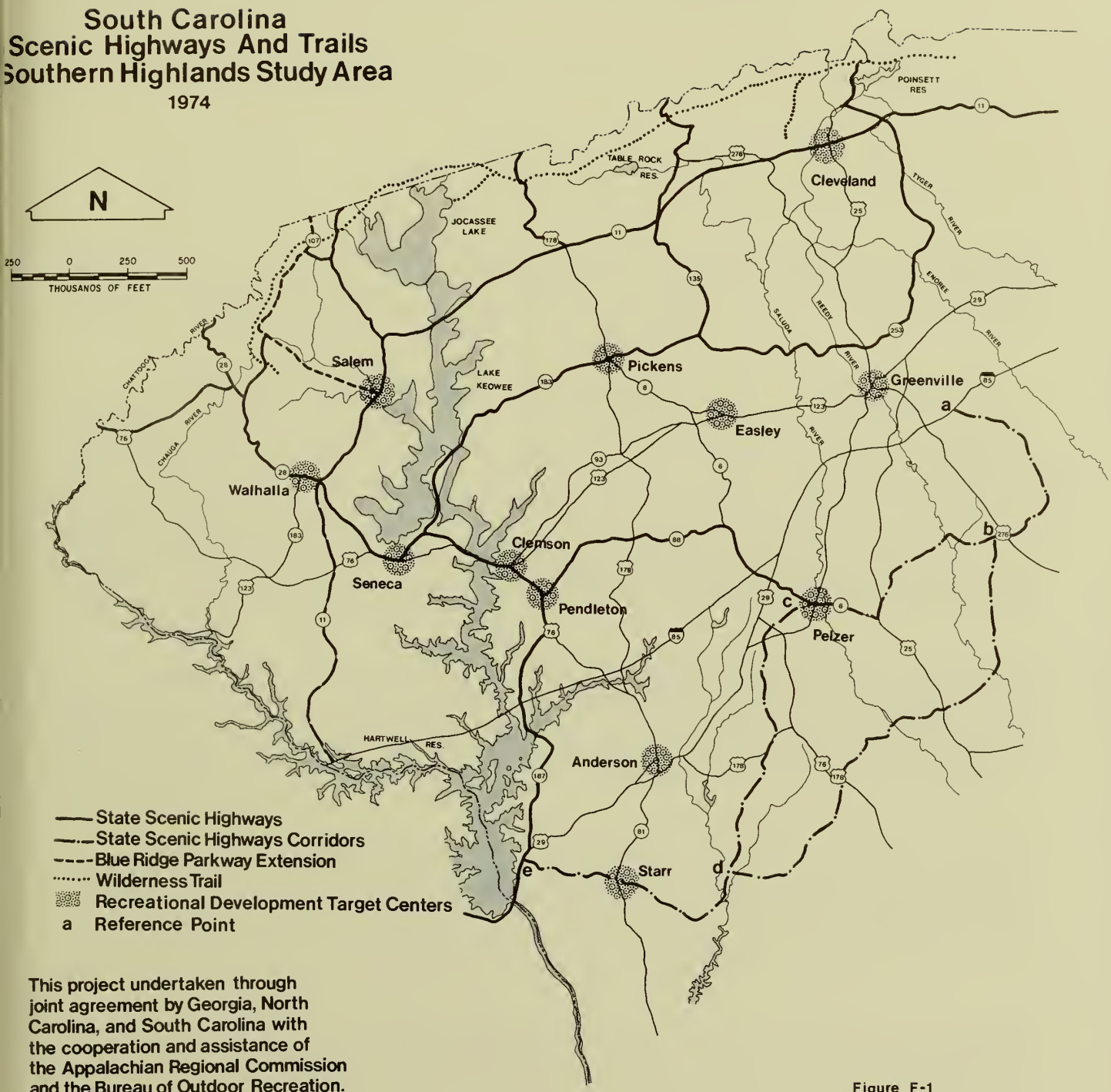
The proposed scenic routes located in the predominantly mountainous section of the study area (Figure 1) include State Route 253, Greenville County Road 121, Old U. S. 25, U. S. 276, and U. S. 178. Also proposed are Oconee County Road 171, State Road 28, Oconee County Road and a short segment of U. S. 76.

State Route 253 would begin at the entrance to Paris Mountain State Park and follow a northern alignment to State Route 11. Improvements to this facility would include the widening and resurfacing of that segment between Tigerville north to State Route 11. It is also recommended that a new segment of this route be constructed to bypass the commercial area at Sandy Flat. This could be accomplished by re-routing the roadway to an existing facility south of Sandy Flat.

Near the intersection of State Road 253 with State Road 11, it is proposed that a connection be made to Greenville County Road 121. The facility would provide interconnection between State Road 11 and old U. S. 25. It will be necessary to improve the alignment of County Road 121 for safety and scenic quality.

From its intersection with County Road 121 to the North Carolina State Line, Old U. S. 25 is proposed as a scenic highway.

South Carolina
Scenic Highways And Trails
Southern Highlands Study Area
1974



This project undertaken through joint agreement by Georgia, North Carolina, and South Carolina with the cooperation and assistance of the Appalachian Regional Commission and the Bureau of Outdoor Recreation.

Figure F-1

Improvement to this route would consist of addition of safety barriers and the construction of scenic overlooks.

In addition the following facilities are also recommended as part of the scenic highway system:

U. S. Route 276 from State Route 11 to the North Carolina State Line
U. S. Route 178 from State Route 11 to the North Carolina State Line

No major physical improvements to these roadways will be required. Minor construction to improve safety along the steeper sections of the roadway will be required. The construction of scenic overlooks and picnic areas is also recommended.

In the northwestern section of the study it is recommended that several routes be added to complement the proposed Blue Ridge Parkway extension. Oconee County Road 171 extending from State Route 11 into North Carolina is recommended as an element of this system. The route passes within visual range of Whitewater Falls - considered to be one of the most spectacular waterfalls in the Southern Appalachian range. The corridor presently connects with State Route 107 (the proposed Parkway extension route) by Oconee County Road _____. The entire route of County Road _____ and a major portion of County Road 171 are within the boundaries of the Sumter National Forest.

State Route 28 beginning at the Georgia State Line and terminating at S. C. Route 11 east of Walhalla is also proposed as part of the scenic highway system. This facility can connect to the proposed Parkway extension via State Route 107. No significant roadway construction will be necessary for the utilization of these routes.

Another recommendation is a connector between State Road 28 and U. S. 76 near the Georgia State Line. This connector should follow the existing alignment of Oconee County Road _____ between its intersection with State Road 28 at the community of Mountain Rest and U. S. 76. Utilization of this facility would require minor widening and resurfacing of the roadway.

South Carolina Route 28 between U. S. 76 south of Pendleton and S. C. Route 11 at West Union is also shown as a State Scenic Highway. This facility would serve as an access route between the proposed recreational complex (Clemson-Seneca-Pendleton) and S. C. Route 11. However, it should be noted that this facility will carry a substantial percentage of commercial and non-recreation-oriented traffic. Therefore, the designation of this

segment of S. C. Route 28 as a scenic highway is in conflict with the desired objectives of such a facility. However, construction of a new roadway or diversion to another route would eliminate a number of significant points of interest along this route. Consequently, this segment of the proposed Scenic Highway System is considered an essential element of the network.

South Carolina Highway 187 from U. S. 76 south of Pendleton to its intersection with U. S. 29 near the Lake Hartwell Dam at the Georgia State Line is also proposed as another segment of the Scenic Highway System. This facility generally follows the eastern shoreline of Lake Hartwell and provides numerous access points to campsites, picnic areas and boat ramps along the eastern shore. Improvements to this route include widening of shoulders and resurfacing of the southern half of this segment.

State Highway 130 has been proposed as part of the Scenic Highway System to connect the recreational complex with Paris Mountain State Park. Beginning at its intersection with State Highway 28 near Seneca, this route will traverse the landscape to its intersection with State Highway 183 near the Oconee Nuclear Power Plant. From this point it follows State Highway 183 alignment through Pickens to State Highway 253 north of the City of Greenville and continues on this alignment to the Paris Mountain State Park access road, which will lead into the Park. No major improvements are anticipated at this time.

A connector between this route and State Highway 11 can be developed along State Route 135 or 183. Either one of these alternatives would provide access to the northern mountains from the central portion of the study area. No major improvements are anticipated for utilization of either route. However, State Highway 135 would probably provide a more pleasing driving experience.

A facility has been proposed within the central part of the area connecting Pendleton and West Pelzer. This facility could traverse the area along State Road 88 and State Road 8. The corridor offers opportunities to view historical homesites and ethic points of interest.

Additional facilities are shown in Figure 1. They are located in the central and southern section of the study area. Principally they are designed to provide access and interconnect the proposed parks within the four county area. A secondary objective would be to afford the motoring public an opportunity to observe the agricultural economy of the Northern Piedmont region of the State. The corridors have been located to utilize existing State and County roads. Since the location of these

parks have not been finalized, only corridors have been shown in Figure 1. Significant improvements are anticipated along these corridors as well as substantial realignment. Finalization of the route locations should coincide with the final planning of the proposed park sites.

SYSTEM MILEAGE

The approximate total route mileage of the Scenic Highways System is 425.2 miles. As shown in Table 1, existing roadways account for approximately 62 per cent or 257.5 miles of the System. This mileage would require only minor improvement to provide a safe and attractive facility.

Existing routes which will require major improvements such as widening or resurfacing account for approximately 27 miles of the system. Construction of new or additional segments of routes total 27.5 miles with the major portion of this mileage associated with the completion of State Route 11.

The corridors previously identified in the southeastern section of the study area would form approximately 25 per cent of the total Scenic Highways System. Most of these facilities will probably require new construction or major roadway improvements. An accurate estimate of improvements along these corridors can be made at the time a definite route is selected.

COST ESTIMATE

Cost estimates for implementing the proposed Scenic Highways System were developed based on typical construction costs of projects completed in 1973. Estimates were developed using a cost per mile figure for the various types of improvements required such as widening and resurfacing, new construction and right-of-way improvement. Recognizing that the cost of construction is extremely sensitive to material costs, labor costs, terrain and related factors, average cost figures have been used for planning purposes.

Average values used in estimating construction costs included the following:

$200,000/Mile	-	New Construction[1]
$ 15,000/Mile	-	Major Improvements (Resurfacing, Shoulder Improvements, etc.)
$ 5,000/Mile	-	Minor Improvements (Guardrails, Right-of-way Improvements, etc.)
$ 22.00/Sq. Ft.	-	Major Bridge Structures

$ 5,000/Lump Sum	-	Overlooks and Parking Areas (Average Capacity - 5 to 10 cars)
$ 250/Acre	-	Right-of-Way[2]

Table 1 provides a summary of estimated construction costs for each segment of the Scenic Highways System. These estimates exclude engineering and contingency fees, scenic easement fees and the cost of traffic control devices.

Estimated construction cost for the proposed South Carolina Southern Highlands Scenic Highways System is $9,675,000. Major elements of this total include the Blue Ridge Parkway Extension at an estimated cost of $1,800,000, completion of State Route 11 at a cost of $3,600,000 and development of scenic roadways along the proposed corridors in the southeast portion of the study area at an estimated cost of $3,000,000. Total construction cost of the system on a per mile basis is just over $23,000 per mile.

Annual maintenance cost for the proposed system was estimated at approximately $1,300 per mile. This figure was developed from data supplied by the South Carolina State Highway Commission for the year 1973. An additional 10 per cent should be added to this figure to cover the cost of maintaining the scenic right-of-way.

SUMMARY

The proposed South Carolina Southern Highland Scenic Highways System is composed of approximately 425 miles of existing and new highway facilities. Major elements of the system include an extension of the Blue Ridge Parkway, State Route 11 and short segments of U. S. Routes 25, 276 and 178.

The total construction cost of the system has been estimated at approximately $10,000,000 or just over $23,000 per mile. Total annual maintenance cost is estimated at approximately $1,450 per year.

IMPLEMENTATION

The projects which make up the proposed Scenic Highways, Roads and Trails System for South Carolina are grouped into a priority scheme for implementation. The priority scheme which refers primarily to phasing schedule, develops a logical sequence for initiating a system of scenic highways and trails. The priority time frame was developed on a twelve (12) year schedule in increments of three (3) years. Each project was analyzed on the basis of its construction cost, its importance in providing access to the region and time required (Table 2).

Table 1
SOUTH CAROLINA
Southern Highlands Study Area
Scenic Highways System

ROUTE NUMBER	FROM	TO	APPROXIMATE MILEAGE Existing	Improved Existing	New Construction	Total	SYSTEM JURISDICTION	ESTIMATED CONSTRUCTION COST
Blue Ridge Parkway Ext.	Junction with State Route	North Carolina State Line	9.0		6.0	15.0	Federal-Scenic(1)	$1,800,000
State Route 11	Spartanburg County Line	Welcome Center at Georgia Line	68.0		20.0	88.0	FAS(2)	3,600,000
State Route 253	State Route 183	State Route 11	10.5	6.0	1.0	17.5	FAS	300,000
Greenville County Rd. 121	State Route 11	Old U. S. Rt. 25		3.0		3.0	SCR	50,000
Old U. S. Route 25	Greenville County Rd. 121	N. C. State Line	7.5			7.5	FAP	25,000
U. S. Route 276	State Route 11	N. C. State Line	8.0			8.0	FAP	25,000
U. S. Route 178	State Route 11	N. C. State Line	7.0			7.0	FAP	20,000
Oconee County Road 171	State Route 11	N. C. State Line	9.5			9.5	SCR(1)	10,000
Oconee County Road ___	Oconee County Road 171	Blue Ridge Parkway Ext.	2.5			2.5	SCR(1)	5,000
State Route 107	State Route 28	Blue Ridge Parkway Ext.	5.0			5.0	FAS(1)	10,000
State Route 28	U. S. Route 76 S. of Pendleton	Georgia State Line	42.0			42.0	FAS(1,2)	300,000
Oconee County Road ___	State Route 28	U. S. Route 76 at Georgia Line		10.0		10.0	SCR(1)	150,000
U. S. Route 76	Oconee County Road ___	Georgia State Line	3.0			3.0	FAP(1)	
State Route 130	State Route 28	State Route 183	6.0			6.0	FAS	
State Route 183	State Route 130	State Route 253	30.0		1.0	31.0	FAS	250,000
State Route 135	State Route 183	Pumkinton-Extended to S. C. 11	14.0			14.0	FAS	10,000
State Route 187	U. S. Route 76	Georgia State Line	14.0	7.5		21.5	FAS(2)	120,000
State Route 88	Pendleton	Junction with State Route 8	14.5			14.5	FAS	
State Route 8	State Route 88	West Pelzer	6.5			6.5	FAS	
Subtotal			257.5	26.5	27.5	311.5		$6,675,000
Scenic Corridor a b c(3)	Reference Point - a	Reference Point - c				32.0		600,000
Scenic Corridor c d e(3)	Reference Point - c	Reference Point - e				38.0		1,200,000
Scenic Corridor b d(3)	Reference Point - b	Reference Point - d				35.0		1,200,000
Subtotal						105.0		$3,000,000
TOTAL						416.5		$9,675,000

(1) All or a segment of this route within National Forest boundaries.
(2) Segments of route follow same alignment as U. S. routes.
(3) Route Corridor - System jurisdiction not determined; only approximate total mileage estimated.
* FAP = Federal Aid Primary; FAS = Federal Aid Secondary; SCR = State County Road.

Table 2
CONSTRUCTION COST SUMMARY
Priority Implementation Program

ROUTE NUMBER	I	II	III	IV
Blue Ridge Parkway Ext.			$1,800,000	
State Route 11	$3,600,000(1)			
State Route 253		$300,000		
Greenville County Rd. 121		50,000		
Old U. S. Route 25		25,000		
U. S. Route 76		25,000		
U. S. Route 178		20,000		
Oconee County Road 171		10,000		
Oconee Oconee County Road ___		5,000		
State Route 107		10,000		
State Route 28		300,000		
Oconee County Road ___		150,000		
State Route 183			250,000	
State Route 135			10,000	
State Route 187		120,000		
Scenic Corridor a b c				$ 600,000
Scenic Corridor c d e				1,200,000
Scenic Corridor b d				1,200,000
Wilderness Trail System	106,000		64,000	
TOTAL	$3,706,000	$895,000	$2,124,000	$3,000,000

(1) Cost includes right-of-way.

PRIORITIES

Included in priority one phasing is the completion of State Highway 11 from west Union to I-85 at the Welcome Center on Lake Hartwell. Also, as part of the first priority scheme, development of the wilderness trail from Oconee State Park to Table Rock State Park. The estimated cost of this phase is approximately $3.7 million dollars.

Projects proposed for implementation during Phase II include improvemnets to State Route 28 through the Recreation complex to the Georgia State Line as well as required improvements to State Route 187 and Oconee County Road _____. This category also includes improvements needed along State Route 107 from State Route 28 to the Blue Ridge Parkway extension alignment and Oconee County Road _____. In addition improvements to State Road 253 from the entrance to Paris Mountain State Park to State Road 11, Greenville County Road 121 and old U. S. 25 are a part of this plan. Improvements along U. S. 276, U. S. 178 and Oconee County Road 171 are also recommended for Priority II implementation. Estimated cost of Phase II is 0.9 million dollars.

Those facilities recommended for implementation as Priority III projects include the extension of the Blue Ridge Parkway and completion of the wilderness trail between Table Rock State Park and Hogback Mountain. Other routes to be included in Priority III are State Route 88, State Route 8 between its junction with State Route 88 and West Pelzer, State Route 183 and State Route 130. In addition, the proposed connector between State Route 183 and State Route 11 along the alignment of State Route 135 is also included in Priority III. It is estimated that the cost of Phase III will be approximately 2.1 million dollars.

Scenic corridors ABC, CDE and BD compose Priority IV system. These facilities are of secondary nature and should be built only after the others are completed. The cost of this Phase approximates 3 million dollars.

DESIGN CRITERIA

Another important element of the implementation Phase of the study is the development of design criteria for scenic roads and trails. As these elements have been discussed at length in Chapter IV of the main report, a review of these recommendations will not be made herein. However, it is hoped that the South Carolina Highway Commission and Parks, Recreation and Tourism will adopt these standards for development of a scenic highway and trail system.

SCENIC TRAILS

Much of the northernmost sections of the Southern Highlands study area is virtually undeveloped with most of the region north of State Route 11 remaining in the forest. Because of this region of the State possess the greatest natural scenic resources of Upper South Carolina itis extremely critical that the area be maintained in its natural state. In an effort to protect these resources and accommodate the public demand the proposed Scenic Highways System was developed.

In recent years, however, many Americans have developed a desire to enjoy their natural wilderness areas not from an automobile or mountain home but by exploring the land on foot. The development of a network of scenic trails is, therefore, a primary goal of the South Carolina Southern Highlands Recreation Study.

Guidelines for the development of several types of footpaths have been discussed in previous sections of this report and will not be reiterated here. The network of trails proposed will consist of several segments of all of the before mentioned trail types.

A wilderness trail corridor, as shown in Figure 1 is proposed along the northern edge of the state. It is proposed that this trail should begin in the vicinity of Oconee State Park and follow a corridor along the upper Chattanooga River. The corridor crosses State Road 107 near the Fish Hatchery and Oconee County Road 171 near Whitewater Falls. At this point the route turns north into North Carolina around Lake Toxaway and back into South Carolina near the headwater of Laural Fork Creek. The route then meanders through the mountains passing across or near Sassafras Mountain, Table Rock State Park, Ceasars Head, Pleasant Ridge State Park, Panther Mountain and Hogback Mountain.

Spurs from the main trail corridor will extend into the three State Parks as well as to various points of interest along the way. In maintaining the wilderness character of the trail access points should be limited and permits issued to control the volume of hikers at any one time. Periodic relocation of the trail alignment should be made to reduce its impact on the land.

Based on the general corridor location, an estimate of the wilderness trail mileage has been made. The main route and spurs would form approximately 80 miles of primitive trails. An estimated 35 miles of this trail would be located in Forest Service lands, State Park lands and the Greenville water shed. Easement for the trail in these areas could be obtained at little or no cost. Easements along the remaining sections would require negotiations with private landowners.

The cost of developing the wilderness trail has been estimated at approximately 40 cents per linear foot or about $2,100 per mile. This cost would include the necessary clearing of the pathway, signing and construction of campsites and rest areas, but excludes easement costs. Total cost of the wilderness trail is estimated at $170,000. Annual maintenance cost has been estimated between $3,000 to $5,000 per year, depending on the usage the trail received and the amount of debris and vegetation which must be cleared.

The local Greenville section of the Sierra Club has made an extensive study of a possible wilderness trail in the same areas. Their knowledge of the region and of hiking requirements will be of invaluable assistance to the development of a trail system. Consequently, it is recommended that they be kept informed of the status of the desires for additional trails and accompanying facilities, so that their input can be made at the appropriate time.

In addition to the wilderness trail, a network of secondary trails should be established within the boundaries of the existing and proposed state parks. It is proposed that this network include; nature trails, bike trails and short hiking trails to accommodate the average park visitor.

These supplemental trails should be located within the park boundary by park officials knowledgeable of the terrain and existing wild animal and plant life. Construction procedures should follow guidelines previously outlined in this report.

APPENDIX

SIGNING

The following pages provide suggested signs which may be used on roads and trails within the Southern Highlands study area. The use of signs on Federally-financed roadways within the study area should follow recommendations as outlined in the Manual of Uniform Traffic Control Devices. The proposed signs on subsequent pages may be used as supplemental signs on major facilities or as primary signing in parks and along specific routes.

Note: All colors and dimensions should follow those prescribed in the Manual on Uniform Traffic Control Devices.

SIZE: 24"x24"
MATERIAL: CARVED WOOD
COLOR: WHITE LEAF ON NATURAL
OR BROWN STAINED WOOD

SIZE: 24"x24"
MATERIAL: METAL
COLOR: WHITE ON GREEN

SIZE: 24"x24"
MATERIAL: METAL
COLOR: WHITE ON GREEN

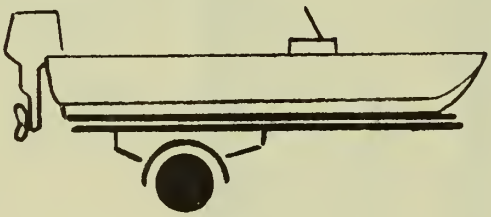
SIZE: 24"x24"
MATERIAL: CARVED WOOD
COLOR: GREEN AND WHITE

Hiking Trails

SIZE: 24"x24"
MATERIAL: METAL
COLOR: WHITE ON BLUE

Bicycle Route

SIZE: 24"x24"
MATERIAL: METAL
COLOR: WHITE ON BLUE



Launching Ramp

SIZE: 24"x24"
MATERIAL: METAL
COLOR: WHITE ON BLUE

CAMPING AREA

SIZE: 24"x24"
MATERIAL: METAL
COLOR: WHITE ON BLUE

LEGISLATION

At the present time there is not a statute on the books allowing the State Highway Commission, PRT or Council of Governments to establish or designate a scenic highway within the state. As part of the study, and in coordination with governmental agencies, an act setting up a scenic highways system and developing a set of criteria has been included for review of consideration (Attachment A).

ATTACHMENT A

FOR DISCUSSION PURPOSES ONLY

An Act To Provide For The Establishment Of A Comprehensive System Of Multi-Modal Scenic Highways For The State Of South Carolina; To Set Forth The Conditions That Will Qualify A Road As A Scenic Highway; To Provide A Procedure For Protecting Views Along Designated Scenic Highways For The Benefit Of Passing Travelers; And To Authorize Use Of The State Highway Trust Fund To Meet Additional Costs Created By This Act.

Be it enacted by the General Assembly of the State of South Carolina.

SECTION 1. This act shall be known as the "Scenic Highways System Act."

SECTION 2. POLICY. The General Assembly finds that (a) In addition to its primary design objectives of maximum safety and efficiency in the movement of traffic, many highways within the State also afford an opportunity for tourists, visitors, and residents to view and enjoy the scenic beauty of South Carolina by automobile and increasingly by bicycle, horseback and on foot; (b) Extensive funding from federal and/or other public sources is used in the construction and maintenance of such highways, thereby obligating the State of South Carolina to maximize all benefits gained from the expenditure of said public funds; (c) The travel and tourism industry is recognized as an important economic factor throughout South Carolina, obligating the General Assembly, in the public interest, to promote the expansion of this industry through the development of a System of Scenic Highways; (d) The System of Scenic Highways is essential to assure maximum economic, as well as aesthetic, benefits from expenditures for the construction and maintenance of said highways, and (e) A procedure for protecting the appeal of the scenic views along said Scenic Highway System is a further obligation of the General Assembly, both from an economic and aesthetic standpoint.

In view of these findings, the General Assembly declares it to be a policy of this state, in accordance with this act, to:

(a) Establish a multi-modal Scenic Highway System for South Carolina;

(b) To establish a procedure for protecting the views along highways in said System by regulating the use of lands immediately abutting highway rights-of-way in said system; and

(c) To establish a means for administering and enforcing said procedure.

SECTION 3. INTENT. Within the policy stated in Section 2 above, it is the specific intent of this act to:

(a) To provide for the recovery and conservation of natural scenic beauty along designated Scenic Highways;

(b) To provide a safe and attractive environment for tourists and travelers to enjoy the scenic beauty of the State of South Carolina;

(c) To encourage the potential of otherwise little-used and by-passed portions of Scenic Highways offering appealing views;

(d) To maximize the economic potential of designated Scenic Highways as tourist attractions; and

(e) To utilize Scenic Highways for bike ways, equestrian routes, and hiking routes where such use is practicable.

Provided however, it is not the intent of this act nor shall it be construed in any way to prohibit the use of any properties, publicly or privately owned, abutting Scenic Highway rights-of-way, in any lawful manner as may be otherwise provided.

SECTION 4. DEFINITIONS. The following terms, whenever used in this Act, shall have the meaning given:

(a) "Scenic Highway" means any highway, or portions thereof, upon which State or Federal funds are used for purposes of construction or maintenance, so designated by the General Assembly from time to time under the provisions of this act, as well as any such highways, or portions thereof, previously so designated by the General Assembly. Within this act, the term "designated Scenic Highway", when used, is synonymous with "Scenic Highway."

(b) "Enforcing Agency" means the South Carolina State Highway Department or any sub-state planning district (as established under the provisions of Act 487 or 1967, as amended), county or municipality, so designated by the South Carolina State Highway Department or Act of Governor or of General Assembly.

(c) "Accessory Use" means a use or building subordinate to and customarily incidental to the main or principal use of the property.

In addition to accessory buildings, such as garages, work sheds, etc., "accessory uses" shall include farm machinery, vehicles, etc., located on the property.

(d) "Nonconforming Use" means a structure or land lawfully occupied by an existing use prior to passage of this act but which, after passage, does not conform to the provisions of this act.

(e) "Off-Street Parking Area" means any public or private open area used for the express purpose of parking automobiles and other vehicles off of public rights-of-way.

(f) "Principal Use" means the primary purpose for which property is occupied and/or used.

(g) "Secondary Use" means any use to which a property is put which not incidental, but in addition to, the principal use on the property, such as the roadside retail sales of farm produce on an otherwise residential property.

(h) "Sign" or "outdoor advertising sign" means any outdoor sign, display, device, figure, painting, drawing, message, plaque, poster, billboard, or other thing which is designed, intended or used to advertise or inform, any part of the advertising or informative contents of which is visible from any place on the main-traveled way of a designated Scenic Highway.

(i) "Structure" means anything constructed or erected, the use of which requires more or less permanent location on the ground or which is attached to something having more or less permanent location on the ground.

(j) "Commercial" shall be understood to include automobile service stations, automobile repair garages, commercial eating and/or drinking establishments, hotels and/or motels, barber and/or beauty shops, pharmacy and/or drug stores, gift or curio shops, hardware stores, grocery stores, bakeries, other outlets specializing in the retailing of food and/or beverage products, banks, savings and loan associations, or similar financial institutions; fishing, hunting, and other recreation equipment suppliers; commercial riding stables, commercial boat marinas.

(k) Public, Semi-Public shall be understood to include any publicly served and/or operated structure, facility, or land; church or other institution of worship; eleemosynary, religious, semi-public or philanthropic institution or camp; and museum, gallery.

(l) "Bikeway" means any Scenic Highway officially designated for bicycle as well as automobile use and having appropriate design features to render safe the joint use of the right-of-way by automobile and by bicycles.

(m) "Multi-Modal" means use of the highway right-of-way by bicycles, horses, and other animals, and pedestrians as well as by automobiles and trucks.

SECTION 5. A SCENIC HIGHWAY SYSTEM ESTABLISHED. There is hereby established a System of Scenic Highways for the State of South Carolina. This System shall consist of those highways or sections thereof previously so designated or which may, in the future, be designated by the General Assembly according to the provisions of this Act.

SECTION 6. PROCEDURE. The Parks, Recreation and Tourism Commission shall have the basic responsibility for preparing and recommending to the General Assembly a proposed State Scenic Highways System. The initial system proposed shall include all highways or portions thereof previously so designated by the General Assembly, as well as any additional highways determined to be desirable additions thereto by the Commission.

The Commission shall make its recommendations only after careful study of the State's entire highway network to determine which highways, or portions thereof, qualify within the intent of this act. Specifically, the recommendations shall describe the general location points of origin and ending, proposed multi-modal use, major landmarks and points of interest along each segment of the proposed Scenic Highway System and shall be accompanied by a detailed report on the factors which, in the judgement of the Commission, make the area a worth addition to the System. The intention of this requirement is to insure that such studies will be made; it is not intended to preclude or discourage studies and proposals containing this information by other agencies or by citizen groups working independently for possible submission to the Commission for its consideration. Indeed, the Commission is directed to seek active assistance and participation from such groups and agencies, and particularly from the South Carolina Department of Archives and History and the ten Regional Planning Councils in the formulation of its recommendations regarding the Scenic Highway System.

Prior to presentation to the General Assembly, any recommendations pertaining to the system shall first be forwarded to the State Highway Commissioner for review and comment. The Commissioner shall have 60 days after receipt of said recommendations to review them and return, in writing, his comments to the Parks, Recreation and Tourism Commission. Such comments shall then accompany, as an enclosure, the recommendations when forwarded to the General Assembly for action. Any failure on the part of the State Highway Commissioner to respond, in writing, within the specified 60 days shall be construed to indicate his agreement with the recommendations proposed.

The General Assembly may then take whatever action it deems necessary on the recommendations, including the enactment of same into law.

SECTION 7. AMENDMENTS TO SYSTEM. The Parks, Recreation and Tourism Commission shall study and in accordance with the procedures established in Section 6 above, at least annually submit to the General Assembly proposals for the additions or deletions to the Scenic Highway System. No amendment shall be made to the system without first being submitted to the Parks, Recreation and Tourism Commission, which shall review them in accordance with the procedure set forth in Section 6 above, and submit them to the General Assembly for action.

SECTION 8. From and after the time when the General Assembly shall have designated a highway or portion thereof as a Scenic Highway, then the following South Carolina state agencies,

departments, and commissions are directed to take the prescribed action:

(a) The South Carolina State Highway Department shall be responsible for (1) administering and enforcing regulations set forth herein designed to protect views along Scenic Highways; and (2) providing proper marking, maintenance, and refuse removal services on the designated Scenic Highway; (3) the erection of appropriate signs designating Scenic Highways established in accordance with this act; and (4) the preparation of appropriate plans and design standards for multi-modal use of Scenic Highway right-of-way. To this end up to 3 per cent of State Highway Trust funds may be devoted to the design, construction, and/or erection of additional facilities authorized under this act.

(b) The Department of Parks, Recreation and Tourism, in addition to any other duties which may be assigned it by the Parks, Recreation, and Tourism Commission related to the implementation of said Commission's responsibilities as set forth in this act, shall study each designated Scenic Highway with the intention of including it in its state and national promotional campaigns. Provided, that in no instance may Scenic Highways be promoted through advertisement or any sign, structure or advertising device along said Highways by the South Carolina State Highway Department in cooperation with the Department of Parks, Recreation, and Tourism.

(c) The South Carolina Department of Archives and History shall study each designated Scenic Highway with the intention of assuring that all significant historic landmarks are appropriately identified for the benefit of passing motorists.

(d) The Division of Administration, Office of the Governor, shall act to coordinate the efforts of local planning commissions, development districts, and other federal, state, and local organizations in continuing the promotion and development of the Scenic Highway System, as well as the protection of views along the rights-of-way of highways in said system through appropriate local and state regulations.

SECTION 9. PROTECTING VIEWS ALONG SCENIC HIGHWAYS. For the benefit of passing motorists, the following provisions are designed to protect views along those highways or portions thereof designated under the provisions of this act.

(a) Jurisdiction. The provisions of this act shall apply only to those properties abutting designated Scenic Highway rights-of-way which are not otherwise now or hereafter zoned in any manner by any subdivision of government acting in accordance with the laws of this state.

(b) Nonconforming Uses. Unless otherwise specified elsewhere in this act, any existing use of land which becomes unlawful as a result of passage of this act, including structures on said land falling within the jurisdiction of this act, may

continue even though such use does not conform with the provisions of this act; provided, however, that the nonconforming use may not be:

(1) Changed to another nonconforming use;
(2) Re-used or re-occupied after discontinuance of use or occupancy for a period of thirty (30) days or more;
(3) Re-established, re-occupied, or replaced with the same or similar use after physical removal or relocation from its specific site location at the time of passage of this act for a period of thirty (30) days or more;
(4) Enlarged or altered in a way which increases its nonconformity.

Further provided that should the provisions of any other state or local regulation pertaining to any uses regulated by this act be more restrictive regarding the conditions placed upon said uses when in a nonconforming status, such regulations shall apply.

(c) Signs. The provisions of the Highway Advertising Control Act (Act No. 930 or 1971, as amended) as related to signs, are expanded to apply to all properties abutting the rights-of-way of designated Scenic Highways. Further, the following additional regulations shall apply regarding the location of signs on property abutting Scenic Highway rights-of-way:

(d) Junkyards. The provisions of The Junkyard Control Act (Paragraphs 33-581 through 33-590, 1962 Code of Laws of South Carolina, as amended) as related to junkyards are expanded to apply to all properties abutting the rights-of-way of designated Scenic Highways. Further, the following additional regulations shall apply regarding the location of junkyards on property abutting Scenic Highway rights-of-way:

(e) Dumping. The provisions of Paragraph 16-396 through of the 1962 Code of Laws of South Carolina, as amended, pertaining to the dumping of garbage, refuse, trash, etc., are expanded to apply to Scenic Highway rights-of-way, as well as property abutting Scenic Highway rights-of-way. Further, the following additional regulations regarding dumping of garbage, refuse, trash, etc., shall apply to said rights-of-way, as well as properties abutting them:

(f) Accessory Uses. Accessory uses located on property abutting designated Scenic Highways shall be located in rear yard areas as set forth for various land uses elsewhere in this act.

(g) Off-Street Parking. Off-street parking shall be provided on each property abutting Scenic Highway rights-of-way according to the use, or uses, of said property as follows:

Residential - two spaces for each dwelling unit and/or mobile home.

Tourist Homes, Boarding Houses, Motels, and Hotels - One

Space for each accommodation plus one space for each three employees.

Public or private golf courses - Four spaces for each green plus one space for each employee.

Professional and business offices - Two spaces plus an additional space for each three hundred (300) square feet and additional fractions thereof of gross floor space.

Service and repair establishments - One space plus an additional space for each two hundred fifty (250) square feet, and additional fractions thereof, of floor area not used for storage.

Retail business - One space plus an additional space for each two hundred (200) square feet, and additional fractions thereof, of retail floor space.

Church, spiritual institutions and places of indoor or outdoor public assembly, with fixed seats, including private clubs - One space for each two staff members or employees plus one space for each four seats in the principal assembly room.

Restaurants, theaters, night clubs, and other such places of public assembly - One space for each four seating accommodations plus one space for each two employees on shift or greatest employment.

Service Stations - Two spaces for each gasoline pump plus three spaces for each grease rack or wash rack.

Wholesaling and Industrial uses including lumber, brick, coal, and supply yards - One space for each two employees at maximum employment on a single shift, plus one space for each company vehicle operating from premises.

Said parking shall include aisles, entrances, and exits, and each required off-street parking area, lot or other facility shall contain a minimum of three hundred (300) square feet of space for each automobile to be accommodated.

(h) Other Uses. Uses listed in Table 1 located within 500 feet laterally in each direction from the centerline of Scenic Highways shall be subject to performance standards concerning minimum lot size, minimum yard set back, and maximum height. Uses not specifically listed in Table 1 are not subject to performance standards.

(i) Through truck traffic is prohibited from using Scenic Highways. However, it is not the intent of this provision nor shall it be construed to, in any way, prevent the use of such highway by local truck traffic.

SECTION 10. SCENIC EASEMENTS.

(a) The State Highway agency (commission or department) is hereby authorized to acquire, either in fee simple or any lesser estate or interest, real property adjacent to or within eyeshot of any Scenic Highway which the State Highway Department considers necessary for the preservation, restoration, or enhancement of scenic beauty within, adjacent to, or within eyeshot of such

highways. Such acquisition may be by gift, purchase, exchange, or condemnation. The cost of acquisition shall be considered part of the cost of highway construction.

(b) The less-than-fee simple interests authorized to be acquired by this act may include scenic easements which are servitudes designed to permit land to remain in private ownership for its normal agricultural, residential, or other use and at the same time to restrict and control the future use of the land for the purpose of preserving, restoring, or enhancing the natural beauty of the land subject to the scenic easement. Scenic easements acquired pursuant to this act shall be deemed to constitute easements both at law and in equity, and all the usual legal and equitable remedies (including prohibitory and mandatory injunctions) shall be available to protect and enforce the State's interest in such scenic easements. All scenic easements acquired pursuant to this act shall be deemed to be appurtenant to the highways to which they are adjacent or from which they are visible. The duties created by any scenic easement acquired pursuant to this act shall be binding upon and enforcible against the original owner of the land subject to the scenic easement and his heirs, successors, and assigns in perpetuity, unless the instrument creating the scenic easement expressly provides for a lesser duration. No court shall declare any scenic easement acquired pursuant to this act to have been extinguished or to have become unenforcible by virture of changed conditions or frustrations or purpose.

(c) The State Highway Department may acquire land in fee simple pursuant to this act and convey or lease such property back to its original owner or to another person or entity subject to such reservations, conditions, easements, covenants, or other contractual arrangements as will preserve, restore, or enhance the scenic beauty of the area traversed by the highway.

(d) The State Highway Department is hereby authorized to grant variances from the reservations, conditions, restrictions, covenants, or other contractual arrangements contained in any scenic easements acquired pursuant to this act or in any conveyances made pursuant to this act, upon the following conditions:

(1) Application for such variance shall be made by the landowner in writing on forms supplied by the State Highway agency and shall include a description of the land, the variance or release desired and the reasons therefor.

(2) Any such variance shall be determined by the State Highway agency to be in the public interest and not contrary to the purposes of the scenic enhancement program.

(3) The State Highway Department shall determine whether the granting of the variance sought will add value to the land in question. If the determination is affirmative, the landowner seeking the variance shall be required to pay such value to the State Highway Department. To aid in such determination, independent appraisers may be employed.

(4) The State Highway Department shall require the execution of such conveyances, contracts, or other instruments as it deems legally necessary to accomplish the desired result.

(e) When the State Highway Department shall deem it necessary to exercise the power of eminent domain to acquire any real property, either in fee simple or any lesser estate or interest, pursuant to this act, the agency shall be entitled at any point in the condemnation proceeding, even after verdict, to have the proceeding dismissed upon payment of all costs of the condemnee, including attorney's fees.

(f) The Legislature hereby declares that the acquisition of interests in real property for the purposes stated in this act will serve a public purpose and provide for a public use of such interests. Where the interest acquired pursuant to this act is a scenic easement or other less-than-fee simple interest imposing scenic restrictions on land, the visual use and occupancy by the traveling public of areas subject to such restrictions is hereby declared to be a public use.

SECTION 11. ADMINISTRATION AND ENFORCEMENT. The following procedures regarding administration and enforcement of the provisions of this act are hereby adopted.

(a) Enforcement Agency. The South Carolina State Highway Department is hereby designated as the agency responsible for administering and enforcing this act. The Department may, by mutual agreement and in the interests of more efficient administration of the programs of this act, delegate this responsibility, or portions thereof, to local governing bodies or to sub-state district organizations established under the provisions of Act 487 of 1967, as amended.

(b) Other Acts. Where appropriate; the provisions of Act 930 of 1971, as amended, Paragraphs 33-381 through 33-590, as amended, and Paragraphs 16-396 through , as amended, of the 1962 Code of Laws of South Carolina, shall apply.

(c) Procedures. In instances where none of the above regulations is applicable, the following shall apply:

(1) A permit shall be required for all structures and uses located on properties abutting Scenic Highway rights-of-way, except public uses and structures, and agricultural uses (not to include roadside stands used for the sale of agricultural produce). This shall apply to uses established and existing before, as well as those established after, passage of this act.

(2) The State Highway Department is directed to issue permits for all appropriate uses. The permit fee shall be $_____. The permit number shall be prominently displayed on the sign.

(3) The State Highway Commission is directed to promulate rules and regulations governing the issuance of such permits, a schedule of periodic inspections to insure compliance,

notification or appropriate law enforcement officials of violators, etc.

(4) Subject to the relief afforded to nonconforming uses in Paragraph 8(b) above, any land use or structure which violates the provisions of this act is hereby declared to be illegal and the department shall give sixty (60) days notice by certified or registered mail to the owner of the property on which such device is located to correct the deficiency. If no action has been taken within the sixty (60) day period, the following provisions shall apply.

(5) Whoever maintains a use of property in violation within this act shall be deemed guilty of a misdemeanor and upon conviction shall be fined not more than one hundred dollars or imprisoned for not more than thirty (30) days.

SECTION 12. Nothing in this act shall be construed to abrogate or affect the provisions of any lawful ordinance, regulations or resolutions, which are more restrictive than the provisions of this act.

SECTION 13. TIME EFFECTIVE. This act shall take effect upon approval by the Governor.

Appendix G

SCENIC TRAILS STANDARDS

SCENIC TRAILS CRITERIA

The footpath or hiking trail is an integral part of any scenic recreational facility. The recent emphasis on getting back to nature has spurred many individuals to don a backpack or daily and overnight hiking trips. The avid hiking enthusiast is generally a physically fit outdoorsman knowledgeable of the wilderness environs and camping procedures. On the other hand the average visitor to our National and State parks, scenic areas and recreation facilities is not versed in wilderness camping and hiking. His use of hiking trails and footpaths are predominently to satisfy a desire to become acquainted with the local flora and fauna, to remove himself from the major activity centers for quiet strolls and contemplation, or to reach an historic or scenic attraction which cannot be closely observed in a moving vehicle.

The above discussion points to a need for development of basically two types of footpaths or hiking trails in the Southern Highlands Scenic Area. These facilities, being geared to the user, will have entirely different design and construction criteria. These trails may be classified as "wilderness" hiking trails and "interpretive" hiking trails. Both facilities should have such physical characteristics as attractive natural settings with a wide variety of flora, fauna, land forms, lakes, streams and historical sites where possible. The "wilderness" trails may have a varied topograph from flat to rugged with little or no man made features. The interpretive trail generally vary in topography from flat to slightly rugged. Man made features such as drainage channels, hand railings and surfaced pathways may be required.

Resting areas must be incorporated into the trails systems. Along wilderness pathways overnight campsites for one or several individuals may occur along the trail. No designated area would be set aside for this purpose with the choice of site being left to the discreation of the user. For a larger group of hikers (over six) a designated camp site removed from the trail corridor should be provided. These sites may include a rudimentary shelter or just a cleared area. Placement of these larger campsites would occur every 10 to 15 miles.

The necessity of providing rest areas on interpretive trails should be determined by the length of the trail and the severeness of topography. On the longer trails (2 to 5 miles) small shelters with sanitary facilities should be constructed. Public areas should not be provided along these trails for reasons of cover, noise and user conflicts.

The following criteria are recommended for hiking trails construction:

WILDERNESS TRAILS

Length - Length of the wilderness trail should be no less than 10 miles.

Width - A four to six foot pathway, cleared of vegetation is required. A narrow three foot width can be used where conditions dictate.

Height - All growth directly above the pathway should be removed to a distance of eight to ten feet. A clear opening to the sky is undesirable in heavily forested areas. A high overhead of branches is desirable to lend to the atmosphere of wilderness and reduce possible erosion by rain.

Pathway - Attention should be given to a reasonable evenness of terrain with the degree of slopes harmonizing the the topography. Occasional removal of rocks, roots and excess vegetation through a periodic maintenance program will be necessary. Careful control of water and erosion is paramount. The use of natural materials such as rock, fallen trees, etc., should be used for this purpose where possible. Stream channels should be left to natural fording. Where absolutely necessary very rudimentary crossings of stream channels may be constructed.

Trail Environs - Easement or right-of-way adjacent to trails should generally follow the guidelines set forth in the Appalachian Trailway Agreement of 1938. These guidelines should be set as minimum with larger areas controlled on private property where feasible. These minimums are recommended as follows:

Easement Requirements

	ATA (1938)	Desirable
Privately Owned Land	100' each side of footpath(1)	200'
Federal Agency Lands*	1 mile each side	Same
State Owned Lands*	1/4 mile each side	Same

*(1) Requires approximately 25 acres per mile of pathway.
* No harvesting for timber production within 200 feet of the trail.

"INTERPRETIVE" TRAILS

Length - Interpretive trails will vary in length from 1/2 of a mile to 5 miles.

Width - The pathway width may range from a single file three foot wide footway to a typical roadway lane width of 12 feet.

Height - Overhead vegetation should be removed for a distance of 10 to 12 feet above the path.

Pathway - Where possible the pathway should follow the natural terrain. A minimum amount of cut and fill may be necessary to provide a safer more easily traveled trail. Attempts to accommodate handicapped and disabled people in pathway construction is recommended for some trails.

Surface treatment of the pathway will depend on soil conditions and estimated usage. Hardsurfaced sections or compacted soil-cement surfaces are recommended for heavily traveled pathways.

A compacted soil-crushed stone base is desirable for moderately heavy traveled trails. Pathways with soil surfaces should be used with discreation taking into account the ability of the soil to support moderately heavy traffic and the effects of erosion due to weather and use.

Trail Environs - "Interpretive" Trails will generally be located around or near points of major attraction such as State and National Parks, historical sites and major recreational at-

tractions. These trails should not be found in or near designated wilderness areas. Since little or no privately owned land will be used for these facilities right-of-way or easement requirements are not of major concern. It is, however, recommended that a minimum of 50 feet on each side of the pathway be maintained in a natural or improved State. Information markings of flora, geological features, etc., should be included in the trail-side environment.

Appendix H

MOTOR BIKE TRAIL STANDARDS

GUIDES FOR MOTORCYCLE USE IN SCENIC RECREATIONAL AREAS

The use of off-road motorcycles is incompatible with other non-associated recreational activities. The national Motorcycle Industry Council recognizing this fact strongly urges the designation of areas solely for the use of motorcycle enthusiast. This organization recommends the development of motorcycle parks either publicly or privately owned. These parks as recommended by the Council include areas for all types of off-road motorcycle activities with supplemental camping and other recreational facilities such as swimming and fishing. The MIC has published a brochure entitled "Motorcycle Park Planning and Management" which details recommended steps in the development and design of parks.

Some brief requirements necessary for a motorcycle park as stated in the above publication include:

1. An area within reasonable distance of major urban areas. Parks equipped for overnight camping may be two to three hours from major user generation areas.
2. Sites with minimum size to accommodate the planned motorcycle activities. The primary concern should be a variety of terrain.
3. An area providing shade and dust-free family camping facilities.
4. A site having paved-roads access (minimum 2-lanes).
5. A site relatively close to sufficient services (i.e., gas stations, restaurants, motorcycle dealers).
6. A site that has or can be equipped with telephone, electricity and sanitary facilities.
7. A site that is relatively compatible with surrounding land use.
8. An area which can be maintained relatively easily.
9. The total area can be boundary-marked and patrolled easily (Total fencing is a must).
10. The site must have suitable availability of community services (fire department, medical facilities, and police).
11. A site having ample level space for parking cars and support vehicles.

In general the size of the area required will depend on the scale of operation. A small park restricted to bikes of 100 cc or less may be developed on as little as 35 acres, where as a large scale facility may require from 300 to over 1,000 acres.

Appendix I

SOUTHERN HIGHLANDS INTERSTATE PLANNING AND DEVELOPMENT COMPACT FORMAT

AN ACT CONCERNING ENTERING INTO THE SOUTHERN HIGHLANDS INTERSTATE PLANNING AND DEVELOPMENT COMPACT AND FOR RELATED PURPOSES

Be it enacted by the _____:
SECTION I. The Southern Highlands Interstate Planning and Development Compact is hereby enacted into law and entered into with the States of _____ and _____ in the form substantially as follows:

Southern Highlands Interstate Planning and Development Compact

Article I
Findings

Whereas, the three States share a common cultural, ecological, recreational, economic base within the Southern Highlands Region, and,

Whereas, more intense demand of its use from a national market requires increasingly coordinated planning and development as a basic ingredient of effective resources management and environmental protection for the region. Now, therefore, it is the intent of this compact to establish and provide for the operation of an interstate planning and development agency for the Southern Highlands.

Article II
Purpose

It is the purpose of this compact to provide, in the Southern Highlands Region, improved facilities and procedures for the coordination of the policies, programs, and activities of interstate significance in the field of natural and economic resources, and to study, investigate, and plan appropriate governmental activities with respect to the conservation, development and use of the same; to provide means by which interstate conflicts may be resolved; and to provide procedures for interstate coordination of the interests of all public and private agencies, persons and entities in the fields covered by this compact; and to provide an organization for cooperation in such coordination.

Article III
Creation of Council

There is hereby created the Southern Highlands Interstate Planning and Development Council hereinafter called the Council.

Article IV
Membership

The Council shall consist of two private citizens appointed by the Governor from each party state to be appointed and to serve, in accordance with and subject to the laws of the State which they represent. The Governor of each State shall consider the existing regional planning commissions when making such appointments but shall not be limited to such groups. Any member of the Council may be represented by an alternate with power to act in his place and stead, if the laws of his state so provide and if notice of the designation of such alternate is given to the Council in such manner as its bylaws may provide. In addition, upon ratification by the Congress, there shall be two members to be appointed by the President to represent the Federal Government.

Article V
Functions

To carry out the purpose of the compact it shall be the responsibility of the Council to prepare studies and plans, and to recommend and carry out procedures for implementing coordination of the policies and programs and activities of interstate significance with regard to the development and protection of natural and economic resources in the Southern Highlands Region. Such functions include the following:

(1) Collection and interpretation of basic data relevant to the needs of resources management.
(2) Investigation, planning, and programming (including Scheduling) of projects of interstate or regional significance.
(3) Planning and scheduling of governmental services and programs which would be of assistance to the objectives, functions, and purposes of the States.

(4) Encouraging of the referral of plans or proposals for projects and programs of interstate or regional significance to the Council.
(5) Studying and recommending means for the most effective utilization of such federal assistance as may be available on a regional basis or as may have an interstate or regional impact.
(6) Assisting the party states, or any of them, in cooperative planning undertakings with the federal government or any agencies thereof.

To avoid duplication of effort and in the interests of economy, the Council shall make use of existing studies, surveys, plans, data, and other materials in the possession of existing interstate, state and local governmental agencies operating in the Southern Highlands Region. Each such agency, within available appropriations and if not expressly prevented or limited by law, is hereby authorized to make such materials available to the Council and to otherwise assist in the performance of its functions. At the request of the Council each such agency is further authorized to provide the Council with information regarding plans and programs affecting the Southern Highlands Region so that the Council may have available to it current information with respect thereto.

The Council shall use qualified public and private agencies to make investigations and conduct research, but if it is unable to secure the undertaking of such investigations or original research by a qualified public or private agency, it shall have the power to make its own investigations and conduct its own research. The Council may make contracts with any public or private agencies or private persons or entities for the undertaking of such investigations or original research within its purview.

The officers and personnel of agencies of the party states, and or any other government or agency whatever, or private citizens, or representatives of private organizations, may serve at the request of the Council upon such advisory committees as the Council may determine to create; and such officers and personnel of any such government or agency, may serve upon such committees without forefeiture of office or employment and with no loss or diminution in the status, rights and privileges which they otherwise enjoy.

Article VI
Cooperation with the Federal Government and Other Governmental Entities

Each party state is hereby authorized to participate in cooperative or joint planning and development undertakings with the federal government, any appropriate agency or agencies thereof, or with any state, regional and local agency or agencies. Such participation shall be at the instance of the Governor or in such other manner as state law may provide or authorize. The Council shall facilitate the work of state representatives in any joint interstate or cooperative federal-state undertaking authorized by this Article, and each such state shall keep the Council advised of its activities in respect of such undertakings, to the extent that they have interstate or regional significance.

Article VII
Enactment

This compact shall become effective when entered into and enacted into law by any two of the States of Georgia, North Carolina and South Carolina and upon ratification by the Congress. Thereafter it shall become effective with respect to the other State upon that State's enacting this compact into law.

SECTION II. This compact shall continue in force and remain binding upon each party state until renounced by it. Renunciation of this compact must be preceeded by sending three year's notice in writing of intention to withdraw from the compact to the Governor of each of the other states party hereto.

Renunciation, within the meaning of the Section of the compact shall be accomplished by act of the General Assembly repealing the compact and by notice in accordance with said article. In the event of such an act of repeal, the Governor shall send notice of such action to all other party States.

Appendix J

NORTH CAROLINA MOUNTAINS AREA MANAGEMENT ACT

GENERAL ASSEMBLY OF NORTH CAROLINA
1973 SESSION
HOUSE BILL 1374*

Short Title: Mountain Area Management. (Public)
Sponsors: Representatives Whichard: Bryan, Greene of Watauga, Harrelson, Hise, Hunt of Cleveland, Jernigan of Hertford.*
Referred to: Water & Air Resources.

January 17, 1974
A BILL TO BE ENTITLED

AN ACT RELATING TO MANAGEMENT OF THE MOUNTAIN AREA OF NORTH CAROLINA.

The General Assembly of North Carolina enacts:

Section 1. G.S. Chapter 113A is hereby amended by adding thereto a new Article 8, to be entitled "Mountain Area Management", and to read as follows:

"Article 8.
"Mountain Area Management.
"Part 1. Organization and Goals.

"§ 113A-135. Short title.--This Article shall be known as the Mountain Area Management Act of 1974.

"§ 113A-136. Cooperative State-local program.--This Article establishes a cooperative program of mountain area management between local and State governments. Local government shall have the initiative for planning. State government shall establish areas of environmental concern. With regard to planning, State government shall act primarily in a supportive standard-setting and review capacity, except where local governments do not elect to exercise their initiative. Enforcement shall be a concurrent State-local responsibility. Regional planning agencies shall coordinate and supplement the activities of local government.

"§ 113A-137. Legislative findings and goals.--(a) Findings. It is hereby determined and declared as a matter of legislative finding that the mountain area including its land and water resources is one of the most valuable areas of North Carolina. The forest and mineral resources of the region are of major importance to the economy of the State and nation. The clear and unpolluted streams, the vast forests, and the scenic vistas of the mountain region make it one of the most esthetically pleasing regions of the State and nation. Because of these features the mountain area of North Carolina has an extremely high recreational and esthetic value which should be preserved and enhanced.

The mountain area in recent years has been subjected to increasing pressures which are the result of the often conflicting needs of a society expanding in industrial development, in population, and in the recreational aspirations of its citizens. Unless these pressures are controlled by coordinated management, the very features of the mountain area which make it economically, esthetically and ecologically rich will be destroyed. The General Assembly, therefore, finds that an immediate and pressing need exists to establish a comprehensive plan for the protection, preservation, orderly development, and management of the mountain area of North Carolina.

In the implementation of the mountain area management plan, the public's opportunity to enjoy the physical, esthetic, cultural, and recreational features provided by the mountains in their natural state shall be preserved to the greatest extent feasible: water resources shall be managed in order to preserve and enhance water quality and to provide optimum utilization; land, forest, and mineral resources shall be managed in order to guide growth and development and to minimize damage to the natural environment; and private property rights shall be preserved in accord with the Constitution of this State and of the United States.

(b) Goals. The goals of the mountain area management system to be created pursuant to this Article are as follows:

(1) To provide a management system capable of preserving and managing the natural ecological conditions of the mountains, including its streams, water-

sheds, slopes, and forests, so as to safeguard and perpetuate the natural productivity of the region, and its biological, economic and esthetic values;

(2) To insure that the development or preservation of the land and water resources of the mountain area proceeds in a manner consistent with the capability of the land and water for development, use, or preservation based on ecological considerations;

(3) To insure the orderly and balanced use and preservation of our mountain resources, including its forests and minerals, on behalf of the people of North Carolina and the nation;

(4) To establish policies, guidelines and standards for:

(i) Protection, preservation, and conservation of natural resources including but not limited to watersheds, scenic vistas, forests, and fish and wildlife; and management of transitional or intensively developed areas and areas especially suited to intensive use or development, as well as areas of significant natural value.

(ii) The economic development of the mountain area, including but not limited to construction, location, and design of industries, commercial establishments, housing developments, use and management of mineral and forest resources, and other development;

(iii) Recreation and tourist facilities and parklands;

(iv) Transportation and circulation patterns for the mountain area including major thoroughfares, transportation routes, and other public utilities and facilities;

(v) Preservation and enhancement of the historic, cultural, and scientific aspects of the mountain area;

(vi) Protection of the present common law and statutory public rights in the lands and waters of the mountain area;

(vii) Any other considerations deemed necessary or appropriate to effectuate the policy of this Article.

"§ 113A-138. Definitions.--As used in this Article:

(1) 'Advisory Council' means the Mountain Resources Advisory created by G.S. 113A-140.

(2) 'Commission' means the Mountain Resources Commission created by G.S. 113A-139.

(3) (a) 'Development' means any activity in a duly designated area of environmental concern (except as provided in paragraph (b) of this subdivision) involving, requiring, or consisting of the construction or enlargement of a structure; excavation; dredging; filling; dumping; removal of clay, silt, sand, gravel or minerals; bulkheading, driving of pilings; clearing or alteration of land as an adjunct of construction; alteration of the shore, bank, or bottom of any river, creek, stream, brook, lake, or canal.

(b) The following activities shall not be deemed to be development under this section:

(i) Work by a highway or road agency or railroad company for the maintenance of an existing road or railroad track, if the work is carried out on hand within the boundaries of the existing right-of-way;

(ii) Work by any utility and other persons engaged in the distribution and transmission of petroleum products, water, telephone or telegraph messages, or electricity for the purpose of inspecting, repairing, or maintaining on existing rights-of-way any existing sewers, mains, pipes, cables, utility tunnels, lines, towers, poles, tracks, and the like;

(iii) The use of any land for the purpose of planting or harvesting plants, crops or other agricultural products, raising livestock and poultry, or for other agricultural purposes where no excavation or filling affecting navigable waters is involved;

(iv) Forestry operations, including but not limited to, seeding, thinning and harvesting when conducted according to a plan

approved by the North Carolina Forest Service or the United States Forest Service;

(v) Emergency maintenance or repairs;

(vi) The construction of any accessory building customarily incident to an existing structure if the work does not involve filling, excavation, or the alteration of any waterway or the cutting or removal of any tree greater than 12 inches in diameter.

(c) The Commission shall define by rule (and may revise from time to time) certain classes of minor maintenance and improvements of structures which shall be exempted from the permit requirements of this Article, in addition to the exclusions set forth in paragraph (b) of this subdivision. In developing such rules the Commission shall consider, with regard to the class or classes of units to be exempted:

(i) The size of the improvement or scope of the maintenance work;

(ii) The location of the structure in proximity to waters, areas of high seismic activity or unstable soils or geologic formations, and areas enumerated in G.S. 113A-148(b)(3); and

(iii) Whether or not dredging or filling is involved in the maintenance or improvement.

(4) 'Key facilities' include the site location and the location of major improvement and major access features of key facilities, and mean:

(a) public facilities, as determined by the Commission, on non-Federal lands which tend to induce development and urbanization of more than local impact, including but not limited to:

(i) any major airport designed to serve as a terminal for regularly scheduled air passenger service or one of State concern;

(ii) major interchanges between the Interstate Highway System and frontage access streets or highways; major interchanges between other limited access highways and frontage access streets or highways;

(iii) major frontage access streets and highways, both of State concern; and

(iv) major recreational lands and facilities;

(b) major facilities on non-Federal lands for the development, generation, and transmission of energy.

(5) 'Lead regional organization' means the regional planning agencies created by and representative of the local governments of a multi-county region, and designated as lead regional organizations by the Governor.

(6) 'Local government' means the governing body of any county or city which contains within its boundaries any lands or waters subject to this Article.

(7) 'Mountain area' means the counties intersected by or bounded in whole or part by the Great Smoky Mountains, Blue Ridge Mountains, Brushy Mountains, or South Mountains, or draining wholly or in part into the Mississippi River system, and within which there is at least one elevation in excess of 3,000 feet above sea level--namely Alleghany, Ashe, Avery, Buncombe, Burke, Caldwell, Cherokee, Clay, Graham, Haywood, Henderson, Jackson, Macon, Madison, McDowell, Mitchell, Polk, Rutherford, Surry, Swain, Transylvania, Watauga, Wilkes and Yancey counties.

(8) 'Person' means any individual, citizen, partnership, corporation, association, organization, business trust, estate, trust, public or municipal corporation, or agency of the State or local government unit, or any other legal entity however designated.

(9) 'Rule' means any policy, regulation or requirement of general application adopted pursuant to this Article.

"§ 113A-139. Mountain Resources Commission.--(a) The General Assembly hereby establishes within the Department of Natural and Economic Resources a commission to be designated the Mountain Resources Commission.

(b) Composition: The Mountain Resources Commission shall consist of 11 members appointed by the Governor, as follows:

(1) One who shall at the time of appointment be actively connected with or have experience in fish and wildlife management.

(2) One who shall at the time of appointment be actively connected with or have experience in ecology.

(3) One who shall at the time of appointment be actively connected with or have experience in industry, other than tourism.

(4) One who shall at the time of appointment be actively connected with or have experience in mountain agriculture.

(5) One who shall at the time of appointment be actively connected with or have experience in mountain forestry.

(6) One who shall at the time of appointment be actively connected with or have experience in mountain land development.

(7) One who shall at the time of appointment be actively connected with or have experience in mountain-related recreation or tourism (other than fishing, wildlife, or land development).

(8) One who shall at the time of appointment be actively connected with or have experience in engineering and soil conservation in the mountain region.

(9) One who shall at the time of appointment be actively associated with a State or national conservation organization.

(10) Two who shall at the time of appointment be actively connected with or have experience in local government within the mountain area.

(c) The members shall serve staggered terms of office of four years. In the event of a vacancy the Governor shall appoint a successor of like qualification (as specified in subsection (b) of this Section) who shall then serve the remainder of his predecessor's term. At the expiration of each member's term the Governor shall reappoint or replace the member with a new member of like qualification (as specified in subsection (b) of this section). The initial term shall be determined by the Governor in accordance with customary practice but six of the initial members shall be appointed for two years and five for four years. At least a majority of the members, at the times of their respective appointments, shall be residents of the mountain area.

(d) The chairman shall be designated by the Governor from among the members of the Commission to serve as chairman at the pleasure of the Governor. The vice-chairman shall be elected by and from the members of the Commission and shall serve for a term of two years or until the expiration of his regularly appointed term.

(e) Compensation: The members of the Commission shall receive per diem and necessary travel and subsistence expenses in accordance with the provisions of G.S. 138-5.

"§ 113A-140. Mountain Resources Advisory Council.--(a) Creation: There is hereby created and established a council to be known as the Mountain Resources Advisory Council.

(b) The Mountain Resources Advisory Council shall consist of not more than 43 members appointed or designated as follows:

(1) Three individuals designated by the Secretary of Natural and Economic Resources from among the employees of his Department;
(2) The Secretary of the Department of Administration or his designee;
(3) The Secretary of the Department of Transportation and Highway Safety or his designee, and one additional member selected by him from his Department.
(4) The Secretary of the Department of Human Resources or his designee;
(5) The Commissioner of Agriculture or his designee;
(6) The Secretary of the Department of Cultural Resources or his designee;
(7) One member from each of the four multi-county planning districts of the mountain area to be appointed by the lead regional agency of each district;
(8) One representative from each of the counties in the mountain area to be designated by the respective boards of county commissioners;
(9) No more than four additional members selected from cities in the mountain area and to be designated by the Commission.
(10) Three members selected by the Commission who are knowledgeable in the natural resource management problems of the mountain area.
(11) One member who is a local health director selected by the Commission upon the recommendation of the State Health Director.

(c) Functions and Duties: The Advisory Council shall assist the Secretaries of Administration and of Natural and Economic Resources in an adivsory capacity: (1) on matters which may be submitted to it by either of them or by the Commission, including

technical questions relating to the development of rules and regulations, and (2) on such other matters arising under this Article as the Council considers appropriate.

(d) Multiple Offices: Membership on the Mountain Resources Advisory Council is hereby declared to be an office that may be held concurrently with other elective or appointive offices (except the office of Commission member) in addition to the maximum number of offices permitted to be held by one person under G.S. 128-1.1.

(e) Chairman and Vice-Chairman: A chairman and vice-chairman shall be elected annually by the Council.

(f) Compensation: The members of the Advisory Council who are not State employees shall receive per diem and necessary travel and subsistence expenses in accordance with the provisions of G.S. 138-5.

"Part 2. Planning Processes.

"§ 113A-141. Scope of planning processes.--Planning processes covered by this Article include the development and adoption of State guidelines for the mountain area and the development and adoption of a land use plan for each county within the mountain area, which plans shall serve as criteria for the issuance or denial of development permits under Part 4.

"§ 113A-142. State guidelines for the mountain area.--(a) State guidelines for the mountain area shall consist of statements of objectives, policies, and standards to be followed in public and private use of land and water areas within the mountain area. Such guidelines shall be consistent with the goals of the mountain area management system as set forth in G.S. 113A-137. They shall give particular attention to the nature of development which shall be appropriate within the various types of areas of environmental concern that may be designated by the Commission under Part 3. Such guidelines shall be adopted, and may be amended from time to time, in accordance with the procedures set forth in this section.

(b) The Commission shall be responsible for the preparation, adoption, and amendment of the State guidelines. In exercising this function it shall be furnished such staff assistance as it requires by the Secretary of Natural and Economic Resources and the Secretary of the Department of Administration, together with

such incidental assistance as may be requested of any other State department or agency.

(c) Within 90 days after the effective date of this Article the Commission shall submit proposed State guidelines to all cities and counties and lead regional organizations within the mountain area for their comments and recommendations. In addition, it shall submit such guidelines to all State, private, federal, regional, and local agencies which it deems to have special expertise with respect to any environmental, social, economic, esthetic, cultural, or historical aspect of development in the mountain area. It shall make copies of the proposed guidelines available to the public through the Department of Administration.

(d) Cities, counties, and lead regional organizations and such other agencies or individuals as desire to do so shall have 60 days from receipt of such proposed guidelines within which to submit to the Commission their written comments and recommendations concerning the proposed guidelines.

(e) The Commission shall review and consider all such written comments and recommendations. Within 210 days after the effective date of this Article, the Commission shall by rule adopt State guidelines for the mountain area. A certified copy of such guidelines shall be filed with the Secretary of State, and the guidelines shall be mailed to each city, county, and lead regional organization in the mountain area and to such other agencies or individuals as the Commission deems appropriate. Copies shall be made available to the public through the Department of Administration.

(f) The Commission may from time to time amend the State guidelines as it deems necessary. In addition, it shall review such guidelines each five years after the effective date of this Article in accordance with the procedures for the original guidelines to determine whether further amendments are desirable. Any proposed amendments shall be submitted to all cities, counties, and lead regional organizations in the mountain area, and may be distributed to such other agencies and individuals as the Commission deems appropriate. All comments and recommendations of such governments, agencies, and individuals shall be submitted to the Commision in writing within 30 days of receipt of the proposed amendments. The Commission shall review and consider these written comments and thereupon may by rule reject or adopt the proposed amendments or modify and adopt the amendments. Certified copies of all amendments shall be filed with the

Secretary of State. Amendments shall thereupon be mailed to each city, county, and lead regional organization in the mountain area and to such other agencies and individuals as the Commission deems appropriate. Copies shall be made available to the public through the Department of Administration.

"§ 113A-143. Effect of State guidelines.--All local land use plans adopted pursuant to this Article within the mountain area shall be consistent with the State guidelines. No permit shall be issued under Part 4 of this Article for development which is inconsistent with the State guidelines. Any State land policies governing the acquisition, use and disposition of land by State departments and agencies shall take account of and be consistent with the State guidelines adopted under this Article, insofar as lands within the mountain area are concerned. Any State land classification system which shall be promulgated shall take account of and be consistent with the State guidelines adopted under this Article, insofar as it applies to lands within the mountain area.

"§ 113A-144. County letter of intent: timetable for preparation of land use plan.--Within 120 days after the effective date of this Article, each county within the mountain area shall submit to the Commission a written statement of its intent to develop a land use plan under this Article or its intent not to develop such a plan. If any county states its intent not to develop a land use plan or fails to submit a statement of intent within the required period, the Commission shall prepare and adopt a land use plan for that county. If a county states its intent to develop a land use plan, it shall complete the preparation and adoption of such plan within 300 days after adoption of the State guidelines. In the event of failure by any county to complete its required plan within this time, the Commission shall promptly prepare and adopt such a plan.

In any case where the Commission has adopted a land use plan for a county that county may prepare its own land use plan in accordance with the procedures of this Article, and upon approval of: such plan by the Commission it shall supersede the Commission's plan on a date specified by the Commission.

"§ 113A-145. Land Use Plans.--(a) A land use plan for a county shall, for the purpose of this Article, consist of state-

ments of objectives, policies, and standards to be followed in public and private use of land within the county, which shall be supplemented by maps showing the appropriate location of particular types of development and their relationships to each other and to public facilities and by specific criteria for particular types of development in particular areas. The plan shall give special attention to the protection and appropriate development of areas of environmental concern designated under Part 3. The plan shall be consistent with the goals of the mountain area management system as set forth in G.S. 113A-137 and with the State guidelines adopted by the Commission under G.S. 113A-142. The plan shall be adopted, and may be amended from time to time, in accordance with the procedures set forth in this section.

(b) The body charged with preparation and adoption of a county's land use plan (whether the county government or the Commission) may delegate some or all of its responsibilities to the lead regional organization for the region of which the county is a part. Any such delegation shall become effective upon the acceptance thereof by the lead regional organization. Any county proposing a delegation to the lead regional organization shall give written notice thereof to the Commission at least two weeks prior to the date on which such action is to be taken. Any city or county within the mountain area may also seek the assistance or advice of its lead regional organization in carrying out any planning activity under this Article.

(c) The body charged with preparation and adoption of a county's land use plan may either (i) delegate to a city within the county responsibility for preparing those portions of the land use plan which affect land within the city's zoning jurisdiction or (ii) receive recommendations from the city concerning those portions of the land use plan which affect land within the city's zoning jurisdiction, prior to finally adopting the plan or any amendments thereto or (iii) delegate responsibility to some cities and receive recommendations from other cities in the county. The county shall give written notice to the Commission of its election among these alternatives.

(d) The body charged with adoption of a land use plan (whether the county or the Commission) may either adopt it as a whole by a single resolution or adopt it in parts by successive resolutions; said parts may either correspond with major geographical sections or divisions of the county or with functional

subdivisions of the subject matters of the plan. Amendments and extensions to the plan may be adopted in the same manner.

(e) Prior to adoption or subsequent amendment of any land use plan, the body charged with its preparation and adoption (whether the county or the Commission or a unit delegated such responsibility) shall hold a public hearing at which public and private parties shall have the opportunity to present comments and recommendations. Notice of the hearing shall be given not less than 30 days before the date of the hearing and shall state the date, time, and place of the hearing; the subject of the hearing; the action which is proposed; and the copies of the proposed plan or amendment are available for public inspection at a designated office in the county courthouse during designated hours. Any such notice shall be published at least once in a newspaper of general circulation in the county.

(f) No land use plan shall become finally effective until it has been approved by the Commission. The county or other unit adopting the plan shall transmit it, when adopted, to the Commission for review. The Commission shall afford interested persons an opportunity to present objections and comments regarding the plan, and shall review and consider each county land use plan in light of such objections and comments, the State guidelines, the requirements of this Article, and any generally applicable standards of review adopted by rule of the Commission. Within 45 days after receipt of a county land use plan, the Commission shall either approve the plan or notify the county of the specific changes which must be made in order for it to be approved. Following such changes, the plan may be resubmitted in the same manner as the original plan.

(g) Copies of each county land use plan which has been approved, and as it may have been amended from time to time shall be maintained in a form available for public inspection by (i) the county, (ii) the Commission, and (iii) the lead regional organization of the region which includes the county.

"§ 113A-146. Effect of land use plan.--No permit shall be issued under Part 4 of this Article for development which is inconsistent with the approved land use plan for the county in which it is proposed. No local ordinance or other local regulation shall be adopted which is inconsistent with the land use plan of the county in which it is effective; any existing local regulations shall be reviewed in light of the county land use plan and modified as may be necessary to make them consistent therewith.

"§ 113A-147. Planning grants.--The Secretary of Natural and Economic Resources is authorized to make annual grants to local governmental units for the purpose of assisting in the development of local plans and management programs under this Article. The Secretary shall develop and administer generally applicable criteria under which local governments may qualify for such assistance.

"Part 3. Areas of Environmental Concern.

"§ 113A-148. Areas of environmental concern; in general.--(a) The Mountain Resources Commission shall by rule designate geographic areas of the mountain area as areas of environmental concern and specify the boundaries thereof, in the manner provided in this Part.

(b) Areas of environmental concern may include all or any one or more of the following:

(1) Any area above 3,500 feet in elevation;

(2) Any area within 660 feet of the right-of-way of the Blue Ridge Parkway or within one-half mile of the boundary of a State or national park, unless a portion of such area is specifically excluded by the Commission on recommendation of the State or federal agency having jurisdiction;

(3) Renewable resource areas where uncontrolled or incompatible development which results in the loss or reduction of continued long-range productivity could jeopardize future water, food or fiber requirements of more than local concern, such as:

(i) Watersheds or aquiters that are present or proposed sources of public water supply, as identified by the North Carolina Board of Health or Board of Water and Air Resources;

(ii) Present or proposed capacity use areas (G.S. 143, Article 21, Part 2) as identified by the Board of Water and Air Resources;

(iii) Prime agricultural land (at least fifty percent (50%) of which can be farmed with normal management practices), as identified by the Commissioner of Agriculture; and

(iv) Prime forestry land (sites capable of producing 85 cubic feet per acre-year, or more, of marketable timber), as identified by the North Carolina Forest Service.

(4) Fragile or historic areas, and other areas containing environmental or natural resources of more than local significance, where uncontrolled or incompatible development could result in major or irreversible damage to important historic, cultural, scientific or esthetic values or natural systems, such as:

(i) Present or proposed sites for national or State parks or forests, wilderness areas, the State Nature and Historic Preserve, or public recreation areas, as identified by the local, State or federal agency having jurisdiction;

(ii) Present or proposed sections of the natural and scenic rivers system, as identified by the Board of Conservation and Development;

(iii) Stream segments that are or are proposed to be classified for scientific or research uses, as identified by the Board of Water and Air Resources;

(iv) Present or proposed wildlife refuges or preserves, as identified by the Wildlife Resources Commission;

(v) Complex natural areas surrounded by modified landscapes that do not drastically alter the landscape, such as virgin forest stands within a commercially managed forest, or bogs in a urban complex;

(vi) Areas that sustain remnant species or aberrations in the landscape produced by natural forces, such as rare and endangered botanical or animal species;

(vii) Areas that are suitable for more than two simultaneous organic uses (such as forestry, scenic, wildlife habitat, recreational, and scientific purposes);

(viii) Areas containing unique geological formations, as identified by the State Geologist; and

(ix) Historic places that are or are proposed to be listed in the National Register of Historic Places pursuant to the National Historic Preservation Act of 1966; historical, archeological, and other places and properties owned, managed or assisted by the State of North Carolina pursuant to G.S. 121; and properties or areas that are or may be designated by the Secretary of the Interior as Registered Natural Landmarks or as National Historic Landmarks.

(4) Areas such as waterways and lands under or flowed by navigable waters, to which the public may have rights of access or public trust rights, and areas which the State of North Carolina may be authorized to preserve, conserve, or protect under Article XIV, Section 5, of the North Carolina Constitution;

(5) Natural hazard areas where uncontrolled or incompatible development could unreasonably endanger life or property, and other areas especially vulnerable to erosion, flooding, or other adverse effects of sand, wind and water, such as:

(i) Floodways and flood plains;

(ii) Areas where geologic and soil conditions are such that there is a substantial possibility of excessive erosion, land slides or seismic activity, as identified by the State Geologist;

(iii) Areas with a significant potential for air inversions, as identified by the Board of Water and Air Resources.

(6) Areas which are or may be impacted by key facilities.

(c) In those instances where subsection (b) of this section refers to locations identified by a specified agency, said agency is hereby authorized to make the indicated identification from time to time and is directed to transmit the identification to the Commission; provided, however, that no designation of an area of environmental concern based solely upon an agency identification of a proposed location may remain effective

for longer than five years unless substantial steps have been taken during said period toward utilization of the proposed location for its intended purpose.

"§ 113A-149. Designation of interim areas of environmental concern; notice of developments within such areas.--(a) Pending the designation of areas of environmental concern pursuant to G.S. 113A-150, the Commission may by rule designate such interim areas of environmental concern (hereafter referred to as 'interim areas') as it deems appropriate.

(b) Not earlier than 15 days nor later than 75 days after the effective date of this Article the Secretary of Natural and Economic Resources, or his designee or designees, shall hold a one-day public hearing, at which public and private parties shall have the opportunity to present views and comments concerning proposed interim areas, in each of the following cities: Asheville, Boone, Franklin, and Morganton. The following provisions shall apply for all such hearings:

(1) The hearing shall begin with a description of interim areas proposed by the Secretary.

(2) Notice of any such hearing shall be given not less than seven days before the date of such hearing and shall state the date, time and place of the hearing, the subject of the hearing and the action to be taken. The notice shall state that a copy of a description of interim areas proposed by the Secretary (including a map of such proposed areas) is available for public inspection at the county courthouse of each county affected.

(3) Any such notice shall be published one time in a newspaper of general circulation in the county or counties affected at least seven days before the date of the public hearing.

(4) Any person who desires to be heard at such public hearing shall give notice thereof in writing to the Secretary on or before the date set for the hearing. The Secretary is authorized to set reasonable time limits for the oral presentation of views by any one person at any such hearing. The Secretary shall permit anyone who so desires to file a written argument or other statement with

him in relation to proposed interim areas within five days following the conclusion of any public hearing or within such additional time as he may allow in his discretion.

(5) A record of each such hearing shall be presented to the Commission by the Secretary, together with the description of interim areas proposed by the Secretary (with such revisions as he deems appropriate in light of the hearings). Upon receipt of said hearing records and description, and consideration of submitted evidence and arguments with respect to any proposed action pursuant to this section, the Commission shall adopt its final action with respect thereto and shall file a duly certified copy thereof with the Secretary of State and with the board of commissioners of each county affected thereby.

(c) The Commission may revise the interim areas (or any part thereof) at any time in the manner provided by subsection (b) of this section, except that the hearing or hearings shall be held in each county in which lands to be affected are located.

(d) The interim areas (with such revisions as may be made pursuant to this section) shall remain in effect until designation of areas of environmental concern are made pursuant to G.S. 113A-150.

(e) During the period while interim areas are in effect, any person proposing to undertake any development in an interim area shall notify the Commission at least 60 days in advance of initiating construction, installation or other activity in connection with said development.

"§ 113A-150. Designation of areas of environmental concern.--(a) Prior to adopting any rule permanently designating any area of environmental concern the Secretary and the Commission shall hold a public hearing in each county in which lands to be affected are located, at which public and private parties shall have the opportunity to present comments and views. The following provisions shall apply for all such hearings:

(1) Notice of any such hearing shall be given not less than 30 days before the date of such hearing and shall state the date, time and place of the hearing, the subject of the hearing, and the action to be taken. The notice shall specify that a

copy of the description of the area or areas of environmental concern proposed by the Secretary is available for public inspection at the county courthouse of each county affected.

(2) Any such notice shall be published at least once in one newspaper of general circulation in the county or counties affected at least 30 days before the date on which the public hearing is scheduled to begin.

(3) Any person who desires to be heard at such public hearing shall give notice thereof in writing to the Secretary on or before the first date set for the hearing. The Secretary is authorized to set reasonable time limits for the oral presentation of views by any one person at any such hearing. The Secretary shall permit anyone who so desires to file a written argument or other statement with him in relation to any proposed plan any time within 30 days following the conclusion of any public hearing or within such additional time as he may allow by notice given as prescribed in this section.

(4) Upon completion of the hearing and considerations of submitted evidence and arguments with respect to any proposed action pursuant to this section, the Commission shall adopt its final action with respect thereto and shall file a duly certified copy thereof with the Secretary of State and with the board of commissioners of each county affected thereby.

(b) In addition to the notice required by G.S. 113A-150(a)(2) notice shall be given to any interested State agency and to any citizen or group that has filed a request to be notified of a public hearing to be held under this section.

(c) The Commission shall review the designated areas of environmental concern at least biennially. New areas may be designated and designated areas may be deleted, in accordance with the same procedures as apply to the original designations of areas under this section. Areas shall not be deleted unless it is found that the conditions upon which the original designation was based shall have been found to be substantially altered.

"Part 4. Permit Letting and Enforcement.

"§ 113A-151. Local government letter of intent.--Within one year after the effective date of this article, each county and city within the mountain area shall submit to the Commission a written statement of its intent to act, or not to act, as a permit-letting agency under G.S. 113A-156. If any city or county states its intent not to act as a permit letting agency or fails to submit a statement of intent within the required period, the Secretary of Natural and Economic Resources shall issue permits therein under G.S. 113A-156; provided that a county may submit a letter of intent to issue permits in any city within said county that declaims its intent to issue permits or fails to submit a letter of intent.

"§ 113A-152. Implementation and enforcement programs.--(a) The Secretary of Natural and Economic Resources shall develop and present to the Commission for consideration and to all cities and counties and lead regional organizations within the mountain area for comment a set of criteria for local implementation and enforcement programs. Said criteria may contain recommendations and guidelines as to the procedures to be followed in developing local implementation and enforcement programs, the scope and coverage of said programs, minimum standards to be prescribed in said programs, staffing of permit letting agencies, permit letting procedures, and priorities of regional and statewide concern. Within 14 months after the effective date of this Article, the Commission shall adopt and transmit said criteria (with any revisions) to each mountain area county and city that has filed an applicable letter of intent, for its guidance.

(b) The governing body of each city in the mountain area that filed an affirmative letter of intent shall adopt an implementation and enforcement plan with respect to its zoning area within 20 months after the effective date of this Article. The board of commissioners of each mountain area county that filed an affirmative letter of intent shall adopt an implementation plan with respect to portions of the county outside city zoning areas within 20 months after the effective date of this Article, provided, however, that a county implementation and enforcement plan may also cover city jurisdictions for those cities within the counties that have not filed affirmative letters of intent pursuant to G.S. 113A-151. Prior to adopting the im-

plementation and enforcement program the local governing body shall hold a public hearing at which public and private parties shall have the opportunity to present comments and views. Notice of the hearing shall be given not less than 15 days before the date of the hearing, and shall state the date, time and place of the hearing, the subject of the hearing, and the action which is to be taken. The notice shall state that copies of the proposed implementation and enforcement program are available for public inspection at the county courthouse. Any such notice shall be published at least once in one newspaper of general circulation in the county at least 15 days before the date on which the public hearing is scheduled to begin.

(c) Each mountain area county and city shall transmit its implementation and enforcement program when adopted to the Commission for review. The Commission shall afford interested persons an opportunity to present objections and comments regarding the program, and shall review and consider each local implementation and enforcement program submitted in light of such objections and comments, the Commission's criteria and any general standards of review applicable throughout the mountain area as may be adopted by the Commission. Within 45 days after receipt of a local implementation and enforcement program the Commission shall either approve the program or notify the county or city of the specific changes that must be made in order for it to be approved. Following such changes, the programs may be resubmitted in the same manner as the original program.

"§ 113A-153. Permit required.--(a) After the date designated by the Secretary of Natural and Economic Resources pursuant to G.S. 113A-160, every person before undertaking any development in any area of environmental concern shall obtain (in addition to any other required permit) a permit pursuant to the provisions of this Part.

(b) Under the expedited procedure provided for by G.S. 113A-156, the permit shall be obtained from the appropriate city or county for any minor development; provided, that if the city or county has not developed an approved implementation and enforcement program, the permit shall be obtained from the Secretary of Natural and Economic Resources.

(c) Under the quasi-judicial procedure provided for by G.S. 113A-157, the permit shall be obtained from the Commission.

(d) Within the meaning of this Part:

(1) A 'major development' is any development which requires permission, licensing, approval, certification or authorization in any form from the Board of Water and Air Resources, the State Board of Health, the State Departments of Natural and Economic Development or Conservation and Development, the State Utilities Commission, the State Department of Administration, the North Carolina Mining Council, the North Carolina Pesticides Board, or the North Carolina Sedimentation Control Board; or which occupies a land or water area in excess of 20 acres; or which contemplates drilling for or excavating natural resources on land or under water; or which occupies on a single parcel a structure or structures in excess of a ground area of 60,000 square feet.

(2) A 'minor development' is any development other than a 'major development'.

"§ 113A-154. Permit applications generally.--(a) Any person required to obtain a permit under this Part shall file with the Secretary of Natural and Economic Resources and (in the case of a permit sought from a city or county) with the designated local official an application for a permit in accordance with the form and content designated by the Secretary and approved by the Commission. The applicant must submit with the application a check or money order payable to the Department or the city or county, as the case may be, constituting a reasonable fee (not to exceed twenty-five dollars ($25.00)) set by the Commission to cover the administrative costs in processing the said application.

(b) Upon receipt of an application, the Secretary shall issue public notice of the proposed development (1) by mailing a copy of the application, or a brief description thereof together with a statement indicating where a detailed copy of the proposed development may be inspected, to any citizen or group which has filed a request to be notified of the proposed development, and to any interested State agency; (2) by posting or causing to be posted a copy of the application at the location of the proposed development; and (3) by publishing notice of the application at least once in one newspaper of general circulation in the county or counties wherein the development would be located at least seven days before final action on a permit

under G.S. 113A-121 or before the beginning of the hearing on a permit under G.S. 113A-122. The notice shall set out that any comments on the development should be submitted to the Secretary by a specified date. Public notice under this subsection is mandatory.

(c) Within the meaning of this Part, the 'designated local official' is the official who has been designated by the local governing body to receive and consider permit applications under this Part.

"§ 113A-155. Grant or denial of permits.--(a) After consideration of submitted evidence and arguments submitted at the hearing, or otherwise in the case where no hearing was conducted, the responsible official or body shall deny the application for permit upon finding:

(i) In the case of an area above 3,500 feet in elevation, that the development is likely to contravene any water quality standards established by or pursuant to G.S. 143, Article 21, Part 1; is likely to contravene sedimentation control standards established by or pursuant to G.S. 113A, Article 4; or is likely to contravene any of the provisions of paragraph (iii) through (vi) of this subsection.

(ii) In the case of an area covered by G.S. 113A-148(b)(2), that the development is likely to jeopardize any of the purposes of the Blue Ridge Parkway or of a State or National Park, as the case may be.

(iii) In the case of a renewable resource area, that the development is likely to result in loss or significant reduction of continued long range productivity that could jeopardize future water, food or fiber requirements of more than local concern.

(iv) In the case of a fragile or historic area, or other area containing environmental or natural resources of more than local significance, that the development is likely to result in a major or irreversible damage to important historic, cultural,

scientific or esthetic values or natural systems.

(v) In the case of areas covered by G.S. 113A-113(4), that the development is likely to jeopardize the public rights or interests specified in said subdivision.

(vi) In the case of natural hazard areas, that the development is likely to unreasonably endanger life or property.

(vii) In the case of areas which are or may be impacted by key facilities, that the development is inconsistent with the State guidelines or the local land use plans, or would contravene any of the provisions of paragraphs (i) through (vi) of this subsection.

(viii) In any case, that the development is inconsistent with the State guidelines or the local land use plans.

(b) In the absence of such findings, a permit shall be granted. The permit may be conditioned upon the applicant's amending his proposal to take whatever measures are reasonably necessary to protect the public interest with respect to the factors enumerated in subsection (a) of this section.

"§ 113A-156. Permits for minor developments under expedited procedures.--(a) Applications for permits for minor developments shall be expeditiously processed so as to enable their promptest feasible disposition.

(b) In cities and counties that have developed approval implementation and enforcement programs, applications for permits for minor developments shall be considered and determined by the designated local official of the city or county as the case may be. In cities and counties that have not developed approved implementation and enforcement programs, such applications shall be considered and determined by the Secretary of Natural and Economic Resources.

(c) Failure of the Secretary or the designated local official (as the case may be) to approve or deny an application for a permit for a minor development within 30 days shall be treated as approval of such applications, except that the Secretary or the designated local official (as the case may be) may extend

such deadline by not more than an additional 30 days if necessary to properly consider the application, in which case failure to act within a total of 60 days shall be treated as approval.

(d) Any person who is directly affected by the decision of the Secretary or the designated local official (as the case may be) to grant or deny an application for minor development permit, may request with 20 days of such action, a hearing before the Commission. In the case of a grant or denial of a permit by a local official, the Secretary shall be considered to be a person affected by the decision. Pending final disposition of any such appeal, no action shall be taken which would be unlawful in the absence of a permit issued under this section.

"§ 113A-157. Permits under quasi-judicial procedures.--(a) The procedure set forth in this section applies to all permit applications for major developments, as well as to permit applications for minor developments whose disposition was appealed under G.S. 113A-156(d). All permit applications subject to this section shall be heard by the Commission.

(b) The following provisions shall be applicable in connection with hearings pursuant to this section:

(i) Any hearing held pursuant to this section shall be held upon not less than 30 days written notice given by the Commission to any person who is a party to the proceedings with respect to which such hearing is to be held, unless a shorter notice is agreed upon by all such parties.

(ii) All hearings under this section shall be open to the public. Any person to whom a delegation of power is made to conduct a hearing shall report the hearing with its evidence and record to the Commission for decision.

(iii) A full and complete record of all proceedings at any hearing under this section shall be taken by a reporter appointed by the Commission or by other method approved by the Attorney General. Any party to a proceeding shall be entitled to a copy of such record upon the payment of the reasonable cost thereof as determined by the Commission.

(iv) The Commission and its duly authorized agents shall follow generally the procedures applicable in civil actions in the superior court insofar as practicable, including rules and procedures with regard to the taking and use of depositions, the making and use of stipulations, and the entering into of agreed settlements and consent orders.

(v) The Commission and its duly authorized agents may administer oaths and may issue subpoenas for the attendance of witnesses and the production of books, papers, and other documents belonging to the said person.

(vi) Subpoenas issued by the Commission in connection with any hearing under this section shall be directed to any officer authorized by law to serve process, and the further procedures and rules of law applicable with respect thereto shall be prescribed in connection with subpoenas to the same extent as if issued by a court of record. In case of a refusal to obey a subpeona issued by the Commission, application may be made to the superior court of the appropriate county for enforcement thereof.

(vii) The burden of proof at any hearing under this section on appeal pursuant to G.S. 113A-156(d) shall be upon the person at whose instance the hearing is being held. The burden of proof at any hearing under this section on a permit application for a major development shall be upon the applicant.

(viii) No decision or order of the Commission shall be made in any proceeding unless the same is supported by competent, material, and substantial evidence upon consideration of the whole record.

(ix) Following any hearing, the Commission shall afford the parties thereto an opportunity to submit within 30 days, or within such

additional time as prescribed by the Commission, proposed findings of fact and conclusions of law and any brief in connection therewith.

(x) After hearing the evidence, the Commission shall grant or deny the permits in accordance with the provisions of G.S. 113A-155. All such orders and decisions of the Commission shall set forth separately the Commission's findings of fact and conclusions of law and shall, whenever necessary, cite the appropriate provision of law or other source of authority on which any action or decision of the Commission is based.

(xi) The Commission shall have the authority to adopt a seal which shall be the seal of said Commission and which shall be judicially noticed by the courts of the State. Any document, proceeding, order, decree, special order, rule, regulation, rule of procedure or any other official act or records of the Commission or its minutes may be certified by the Executive Director under his hand and the seal of the Commission and when so certified shall be received in evidence in all actions or proceedings in the courts of the State without further proof of the identity of the same if such records are competent, relevant and material in any such action to proceedings. The Commission shall have the right to take judicial notice of all studies, reports, statistical data or any other official reports or records of the federal government or of any sister state and all such records, reports and data may be placed in evidence by the Commission or by any other person or interested party where material, relevant and competent.

(c) Failure of the Commission to approve or deny an application for a permit pursuant to this section within 90 days shall be treated as approval of such application, except that the Commission may extend such deadline by not more than an additional

90 days if necessary to properly consider the application.

(d) All notices which are required to be given by the Secretary or Commission or by any party to a proceeding under this section shall be given by registered or certified mail to all persons entitled thereto. The date of receipt or refusal for such registered or certified mail shall be the date when such notice is deemed to have been given. Notice by the Commission may be given to any person upon whom a summons may be served in accordance with the provisions of law covering civil actions in the superior courts of this State. The Commission may prescribe the form and content of any particular notice.

"§ 113A-158. Judicial review.--Any person directly affected by any final decision or order of the Commission under this Part may appeal such decision or order to the Superior Court of the county where the land or any part thereon is located, pursuant to the provisions of Article 33 of Chapter 143 of the General Statutes. Pending final disposition of any appeal, no action shall be taken which would be unlawful in the absence of a permit issued under this Part.

"§ 113A-159. Additional powers and duties.--(a) The Secretary of Natural and Economic Resources shall have the following additional powers and duties under this Article.

(1) To conduct, or cause to be conducted, investigations of proposed developments in areas of environmental concern in order to obtain sufficient evidence to enable a balanced judgment to be rendered concerning the issuance of permits to build such developments.
(2) To cooperate with the Secretary of the Department of Administration in drafting State guidelines for the mountain area.
(3) To keep a list of interested persons who wish to be notified of proposed developments and proposed rules designating areas of environmental concern and to so notify these persons of such proposed developments by regular mail. A reasonable registration fee to defray the cost of handling and mailing notices may be charged to any person who so registers with the Commission.
(4) To propose rules and regulations to implement

this Article for consideration by the Commission.

(5) To delegate such of his powers as he may deem appropriate to one or more qualified employees of the Department of Natural and Economic Resources or to any local government, provided that the provisions of any such delegation of power shall be set forth in departmental regulations.

(6) To delegate to any person the power to conduct a hearing on his behalf. Any person to whom a delegation of power is made to conduct a hearing under G.S. 113A-157 shall report his recommendations with the evidence and the record of the hearing to the Secretary for decision or action.

(b) In order to carry out the provisions of this Article the Secretaries of Administration and of Natural and Economic Resources may employ such clercial, technical and professional personnel, and consultants with such qualifications as the Commission may prescribe, in accordance with the State Personnel Regulations and Budgetary Laws, and is hereby authorized to pay such personnel from any funds made available to him through grants, appropriations, or any other sources. In addition, the Secretaries may contract with any mountain area, multi-county planning region or any local governmental unit or lead regional organization to carry out the planning provisions of this Article.

(c) The Commission shall have the following additional powers and duties under this Article:

(1) To recommend to the Secretary of Natural and Economic Resources the acceptance of donations, gifts, grants, contributions and appropriations from any public or private source to use in carrying out the provisions of this Article.

(2) To recommend to the Secretary of Administration the acquisition by purchase, gift, condemnation, or otherwise, lands or any interest in any lands within the mountain area.

(3) To hold such public hearings as the Commission deems appropriate.

(4) To delegate such of the powers of the Commission as the Commission deems appropriate to one or more of its members, to any other State agency, or to any local or regional government, provided that the provisions of any such delegation of

power shall be set forth in the regulations of the Commission.

(5) To delegate to any person the power to conduct a hearing on behalf of the Commission. Any person to whom a delegation of power is made to conduct a hearing shall report his recommendations with evidence and the record of the hearing to the Commission for decision or action.

(6) To adopt from time to time and to modify and revoke official regulations interpreting and applying the provisions of this Article and rules of procedures establishing and amplifying the procedures to be followed in the administration of this Article.

(d) The Attorney General shall act as attorney for the Commission and shall initiate actions in the name of, and at the request of, the Commission, and shall represent the Commission in the hearing of any appeal from or other review of any order of the Commission.

"§ 113A-160. Transitional provisions.--(a) Existing regulatory permits shall continue to be administered within the mountain area by the agencies presently responsible for their administration; provided, however, that from and after the 'permit changeover date' said existing regulatory permits shall be administered within the mountain area in coordination and consultation with the Commission, and no such permit affecting the mountain area shall be issed, modified, renewed or terminated except after consultation with the Commission. The 'permit changeover date' is a date to be designated by the Secretary of Natural and Ecoomic Resources, not later than 27 months after the effective date of this Article, which designation shall be effective from and after its filing with the Secretary of State.

(b) Within the meaning of this section, 'existing regulatory permits' include but are not limited to air pollution control and water pollution control permits, special orders or certificates issued pursuant to G.S. 143-215.1 and 143-215.2, or any other permits, licenses, authorizations, approvals or certificates issued by the Board of Water and Air Resources pursuant to G.S. 143; capacity use area permits issued pursuant to G.S. 143-215.15; final approval of dams pursuant to G.S. 143-215.30; floodway permits issued pursuant to G.S. 143-215.54;

water diversion authorizations issued pursuant to G.S. 143-354(c); oil refinery permits issued pursuant to G.S. 143-215.99; mining operating permits issued pursuant to G.S. 74-51; permissions for construction of wells issued pursuant to G.S. 87-88; restricted use pesticide permits and regulations issued pursuant to G.S. 143-440(b), pesticide applicator licenses issued pursuant to G.S. 143-452 for persons who may apply pesticides within the mountain area, and regulations concerning pesticide application within the mountain area issued pursuant to G.S. 143-458; approvals by the State Board of Health of plans for water supply, drainage or sewerage, pursuant to G.S. 130-161.1 and 130-161.2; standards and approvals for solid waste disposal sites and facilities, adopted by the State Board of Health pursuant to G.S. 130, Article 13B; permits relating to sanitation of shellfish, crustacea or scallops issued pursuant to G.S. 130, Article 14A or 14B; permits, approvals, authorizations and regulations issued by the State Board of Health pursuant to Article 23 or 24 of G.S. 130 with reference to mosquito control programs or districts; any permits, licenses, authorizations, regulations, approvals or certificates issued by the State Board of Health relating to septic tanks or water wells; oil or gas well regultions and orders issued for the protection of environmental values or resources pursuant to G.S. 113-391; a certificate of public convenience and necessity issued by the State Utilities Commission pursuant to G.S. 62 for any public utility plant or system, other than a carrier of persons or property; permits, licenses, leases, options, authorization or approvals relating to the use of State forest lands, State parks or other State-owned land issed by the State Department of Administration, the State Department of Natural and Economic Resources or any other State department, agency or institution; any approvals of erosion control plans that may be issued by the North Carolina Sedimentation Control Commission pursuant to G.S. 113A-60 or 113A-61 and any permits, licenses, authorizations, regulations, approvals or certificates issued by any State agency pursuant to any environmental protection legislation not specified in this subsection that may be enacted prior to the permit changeover date.

(c) The Commission shall conduct continuing studies addressed to developing a better coordinated and more unified system of environmental and land use permits in the mountain area, and shall report its recommendations thereon from time to time to the General Assembly.

"§ 113A-161. Injunctive relief and penalties.--(a) Upon violation of any of the provisions of this Article or of any regulation, rule or order adopted under the authority of this Article, the Secretary may, either before or after the institution of proceedings for the collection of any penalty imposed by this Article for such violation, institute a civil action in the General Court of Justice in the name of the State upon the relation of the Secretary for injunctive relief to restrain the violation and for such other further relief in the premises as said court shall deem proper. Neither the institution of the action nor any of the proceedings thereon shall relieve any party to such proceedings from any penalty prescribed by this Article for any violation of same.

(b) Upon violation of any of the provisions of this Article relating to permits for minor developments issued by the local government, or of any regulation, rule or order adopted under the authority of this Article relating to such permits, the designated local official may, either before or after the institution of proceedings for the collection of any penalty imposed by this Article for such violation, institute a civil action in the General Court of Justice in the name of the affected local government upon the relation of the designated local official for injunctive relief to restrain the violation and for such other and further relief in the premises as said court shall deem proper. Neither the institution of the action nor any of the proceedings thereon shall relieve any party to such proceedings from any penalty prescribed by this Article for any violation of same.

(c) Any person who shall be adjudged to have knowingly or willfully violated any provision of this Article, or any regulation, rule or order adopted pursuant to this Article, shall be guilty of a misdemeanor, and for such violation shall be liable for a penalty of not less than one hundred dollars ($100.00) nor more than one thousand dollars ($1,000) or shall be imprisoned for not more than 60 days, or both. In addition, if any person continues to violate or further violates, any such provision, regulation, rule or order after written notice from the Secretary or (in the case of a permit for a minor development issued by a local government) written notice from the designated local official, the court may determine that each day during which the violation continues or is repeated constitutes a separate violation subject to the foregoing penalties.

(d) (1) A civil penalty of not more than one thousand dollars ($1,000) may be assessed by the Commission against any person who:

(i) Is required but fails to apply for or to secure a permit required by G.S. 113A-157, or who violates or fails to act in accordance with the terms, conditions, or requirements of such permit.

(ii) Fails to file, submit, or make available, as the case may be, any documents, date or reports required by the Commission pursuant to this Article.

(iii) Refuses access to the Commission or its duly designated representatives to any premises for the purpose of conducting any investigations provided for in this Article.

(iv) Violates any duly adopted regulation of the Commission implementing the provisions of this Article.

(2) If any action or failure to act for which a penalty may be assessed under this subsection is willfull, the Commission may assess a penalty not to exceed one thousand dollars ($1,000) per day for so long as the violation continues.

(3) The Commission may assess the penalties provided for in this subsection. Any person assessed shall be notified of the assessment by registered or certified mail, and the notice shall specify the reasons for the assessment. If the person assessed fails to pay the amount of the assessment to the Department of Natural and Economic Resources within 30 days after receipt of notice, or such longer period, not to exceed 100 days, as the Commission may specify, the Commission may insitute a civil action in the superior court of the county in which the violation occurred or, in the discretion of the Commission, in the superior court of the county in which the person assessed resides or has his or its principal place of business, to recover the amount of the assessment. In any such civil action, the scope of the court's review of the Commission's action (which shall include a review of the amount of

the assessment), shall be as provided in G.S. 143-315.

"§ 113A-162. Coordination with the federal government.--All State agencies shall keep informed of federal and interstate agency plans, activities, and procedures within their area of expertise that affect the mountain area. Where federal or interstate agency plans, activities or procedures conflict with State policies, all reasonable steps shall be taken by the State to preserve the integrity of its policies.

"§ 113A-163. Protection of landowners' rights.--Nothing in this Article authorizes any governmental agency to adopt a rule or regulation or issue any order that constitutes a taking of property in violation of the Constitution of this State or of the United States, without payment of full compensation.

"§ 113A-164. Severability.--If any provision of this Article or its application to any person or circumstance is held invalid, the remainder of the Article, or the application on the provisions to other persons or circumstances, is not affected."

Sec. 2. This act shall become effective July 1, 1974.

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*Additional Sponsors: Johnson of Wake, Mason, Payne, Purrington, Rhodes, Roberson, Smith, White and Wynne.

Appendix K

RECOMMENDATIONS OF THE PUBLIC LAND LAW REVIEW COMMISSION

The following are 137 recommendations made by the Public Land Law Review Commission to the President and the Congress. These recommendations should be adopted by all federal agencies with land ownership or having jurisdictions or programs affecting the use of land or other natural resources in the Southern Highlands as a framework of principles for coordinating and planning their policies and programs.

1. Goals should be established by statute for a continuing, dynamic program of land use planning. These should include:

Use of all public lands in a manner that will result in the maximum net public benefit.

Disposal of those lands identified in land use plans as being able to maximize net public benefit only if they are transferred to private or state or local governmental ownership, as specified in other Commission recommendations.

Management of primary use lands for secondary uses where they are compatible with the primary purpose for which the lands were designated.

Management of all lands not having a statutory primary use for such uses as they are capable of sustaining.

Disposition or retention and management of public lands in a manner that complements uses and patterns of use on other ownership in the locality and the region.

2. Public land agencies should be required to plan land uses to obtain the greatest net public benefit. Congress should specify the factors to be considered by the agencies in making these determinations, and an analytical system should be developed for their application.

3. Public lands should be classified for transfer from Federal ownership when net public benefits would be maximized by disposal.

4. Management of public lands should recognize the highest and best use of particular areas of land as dominant over other authorized uses.

5. All public land agencies should be required to formulate long range, comprehensive land use plans for each state or region, relating such plans not only to internal agency programs but also to land use plans and attendant management programs of other agencies. Specific findings should be provided in their plans, indicating how various factors were taken into account.

6. As an essential first step to the planning system we recommend, Congress should provide for a careful review of (1)

all Executive withdrawals and reservations, and (2) BLM retention and disposal classifications under the Classification and Multiple Use Act of 1964.

7. Congress should provide authority to classify national forest and BLM lands, including the authority to suspend or limit the operation of any public land laws in specified areas. Withdrawal authority should no longer be used for such purpose.

8. Large scale, limited or single use withdrawals of a permanent or indefinite term should be accomplished only by act of Congress. All other withdrawal authority should be expressly delegated with statutory guidelines to insure proper justification for proposed withdrawals, provide for public participation in their consideration, and establish criteria for executive action.

9. Congress should establish a formal program by which withdrawals would be periodically reviewed and either rejustified or modified.

10. All Executive withdrawal authority, without limitation, should be delegated to the Secretary of the Interior, subject to the continuing limitation of existing law that the Secretary cannot redelegate to anyone other than an official of the Department appointed by the President, thereby making the exercise of this autority wholly independent of public land management operating agency heads.

11. Provision should be made for public participation in land use planning, including public hearings on proposed Federal land use plans, as an initial step in a regional coordination process.

12. Land use planning among Federal agencies should be systematically coordinated.

13. State and local governments should be given an effective role in Federal agency land use planning. Federal land use plans should be developed in consultation with these governments, circulated to them for comments, and should conform to state or local zoning to the maximum extent feasible. As a general rule, no use of public land should be permitted which is prohibited by state or local zoning.

14. Congress should provide additional financial assistance to public land states to facilitate better and more comprehensive land use planning.

15. Comprehensive land use planning should be encouraged through regional commissions along the lines of the river basin commissions created under the Water Resources Planning Act of

1965. Such commissions should come into existence only with the consent of the states involved, with regional coordination being initiated when possible within the context of existing state and local political boundaries.

16. Environmental quality should be recognized by law as an important objective of public land management, and public land policy should be designed to enhance and maintain a high quality environment both on and off the public lands.

17. Federal standards for environmental quality should be established for public lands to the extent possible, except that, where state standards have been adopted under Federal law, state standards should be utilized.

18. Congress should require classification of the public lands for environmental quality and enhancement and maintenance.

19. Congress should specify the kinds of environmental factors to be considered in land use planning and decision making, and require the agencies to indicate clearly how they were taken into account.

20. Congress should provide for greater use of stuides of environmental impacts as a precondition to certain kinds of uses.

21. Existing research programs related to the public lands should be expanded for greater emphasis on environmental quality.

22. Public hearings with respect to environmental considerations should be mandatory on proposed public land projects or decisions when requested by the states or by the Council on Environmental Quality.

23. Congress should authorize and require the public land agencies to condition the granting of rights or privileges to the public lands or their resources on compliance with applicable environmental control measures governing operations off public lands which are closely related to the right or privilege granted.

24. Federal land administering agencies should be authorized to protect the public land environment by (1) imposing protective covenants in disposals of public lands, and (2) acquiring easements on non-Federal lands adjacent to public lands.

25. Those who use the public lands and resources should, in each instance, be required by statute to conduct their activities in a manner that avoids or minimizes adverse environmental impacts, and should be responsible for restoring areas to an acceptable standard where their use has an adverse impact on the environment.

26. Public land areas in need of environmental rehabilitation should be inventoried and the Federal Government should

undertake such rehabilitation. Funds should be appropriated as soon as practical for environmental management and rehabilitation research.

27. Congress should provide for the creation and preservation of a natural area system for scientific and educational purposes.

28. There should be a statutory requirement that those public lands that are highly productive for timber be classified for commercial timber production as the dominant use, consistent with the Commission's concept of how multiple use should be applied in practice.

29. Federal programs on timber production units should be financed by appropriations from a revolving fund made up of receipts from timber sales on these units. Financing for development and use of public forest lands, other than those classified for timber production as the dominant use, would be by appropriation of funds unrelated to receipts from the sale of timber.

30. Dominant timber production units should be managed primarily on the basis of economic factors so as to maximize net returns to the Federal Treasury. Such factors should also play an important but not primary role in timber management on other public lands.

31. Major timber management decisions, including allowable-cut determinations, should include specific consideration of economic factors.

32. Timber sales procedures should be simplified wherever possible.

33. There should be an accelerated program of timber access road construction.

34. Communities and firms dependent on public land timber should be given consideration in the management and disposal of public land timber.

35. Timber production should not be used as a justification for acquisition or disposition of Federal public lands.

36. Controls to assure that timber harvesting is conducted so as to minimize adverse impacts on the environment on and off the public lands must be imposed.

37. Public land forage policies should be flexible, designed to attain maximum economic efficiency in the production and use of forage from the public land, and to support regional economic growth.

38. The grazing of domestic livestock on the public lands

should be consistent with the productivity of those lands.

39. Existing eligibility requirements should be retained for the allocation of grazing privileges up to recent levels of forage use. Increases in forage production above these levels should be allocated under new eligibility standards. Grazing permits for increased forage production above recent levels should be allocated by public auction among qualified applicants.

40. Private grazing on public land should be pursuant to a permit that is issued for a fixed statutory term and spells out in detail the conditions and obligations of both the Federal Government and the permittee, including provisions for compensation for termination prior to the end of the term.

41. Funds should be invested under statutory guidelines in deteriorated public grazing lands retained in Federal ownership to protect them against further deterioration and to rehabilitate them where possible. On all other retained grazing lands, investments to improve grazing should generally be controlled by economic guidelines promulgated under statutory requirements.

42. Public lands, including those in national forests and land utilization projects, should be reviewed and those chiefly valuable for the grazing of domestic livestock identified. Some such public lands should, when important public values will not be lost, be offered for sale at market value with grazing permittees given a preference to buy them. Domestic livestock grazing should be declared as the dominant use on retained lands where appropriate.

43. Control should be asserted over public access to and the use of retained public grazing lands for nongrazing uses in order to avoid unreasonable interference with authorized livestock use.

44. Fair-market value, taking into consideration factors in each area of the lands involved, should be established by law as a basis for grazing fees.

45. Policies applicable to the use of public lands for grazing purposes generally should be uniform for all classes of public lands.

46. Congress should continue to exclude some classes of public lands from future mineral development.

47. Existing Federal systems for explorations, development, and production of mineral resources on the public lands should be modified.

48. Whether a prospector has done preliminary exploration work or not, he should, by giving written notice to the appropri-

ate Federal land management agency, obtain an exclusive right to explore a claim of sufficient size to permit the use of advanced methods of exploration. As a means of assuring explorations, reasonable rentals should be charged for such claims, but actual expenditures for exploration and development work should be credited against the rentals.

Upon receipt of the notice of location, a permit should be issued to the claimholder, including measures specifically authorized by statute necessary to maintain the quality of the environment, together with the type of rehabilitation that is required.

When the claimholder is satisfied that he has discovered a commercially mineable deposit, he should obtain firm development and production rights by entering into a contract with the United States to satisfy specified work or investment requirements over a reasonable period of time.

When a claimholder begins to produce and market minerals, he should have the right to obtain a patent only to the mineral deposit, along with the right to utilize surface for production. He should have the option of acquiring title or lease to surface upon payment of market value.

Patent fees should be increased and equitable royalties should be paid to the United States on all minerals produced and marketed whether before or after patent.

49. Competitive sale of exploration permits or leases should be held whenever competitive interest can reasonably be expected.

50. Statutory provision should be made to permit hobby collecting of minerals on the unappropriated public domain and the Secretary of the Interior should be required to promulgate regulations in accordance with statutory guidelines applicable to these activities.

51. Legislation should be enacted which would authorize legal actions by the Government to acquire outstanding claims or interests in public land oil shale subject to judicial determination of value.

52. Some oil shale public lands should be made available now for experimental commercial development by private industry with the cooperation of the Federal Government in some aspects of the development.

53. Restrictions on public land mineral activity that are no longer relevant to existing conditions should be eliminated so as to encourage mineral exploration and development and long

standing claims should be disposed of expeditiously.

54. The Department of the Interior should continue to have sole responsibility for administering mineral activities on all public lands, subject to consultation with the department having management functions for other uses.

55. In future disposals of public lands for non-mineral purposes, all mineral interests known to be of value should be reserved with exploration and development discretionary in the Federal Government and a uniform policy adopted relative to all reserved mineral interests.

56. The implied reservation doctrine of water rights for federally reserved lands should be clarified and limited by Congress in at least four ways: (a) amounts of water claimed, both surface and underground, should be formally established; (b) procedures for contesting each claim should be provided; (c) water requirements for future reservations should be expressly reserved; and (d) compensation should be awarded where interference results with claims valid under state law before the decision in Arizona v. California.

57. Congress should require the public land management agencies to submit a comprehensive report describing: (1) the objectives of current watershed protection and management programs; (2) the actual practices carried on under these programs; and (3) the demonstrated effect of such practices on the program objectives. Based on such information, Congress should establish specific goals for watershed protection and management, provide for preference among them, and commit adequate funds to achieve them.

58. "Watershed protection" should in specified, limited cases be: (1) a reason for retaining lands in Federal ownership; and (2) justification for land acquisition.

59. Congress should require federally authorized water development projects on public lands to be planned and managed to give due regard to other values of the public lands.

60. Federal officials should be given clear statutory authority for final land use decisions that affect fish and wildlife habitat or populations on the public lands. But they should not take action inconsistent with state harvesting regulations, except upon a finding of overriding national need after adequate notice to, and full consultation with, the states.

61. Formal statewide cooperative agreements should be used to coordinate public land fish and wildlife programs with the states.

62. The objectives to be served in the management of fish and resident wildlife resources, and providing for their use on all classes of Federal public lands, should be clearly defined by statute.

63. Statutory guidelines are required for minimizing conflicts between fish and wildlife and other public land uses and values.

64. Public lands should be reviewed and key fish and wildlife habitat zones identified and formally designated for such dominant use.

65. A Federal land use fee should be charged for hunting and fishing on all public lands open for such purposes.

66. The states and the Federal Government should share on an equitable basis in financing fish and wildlife programs on public lands.

67. State policies which unduly discriminate against nonresident hunters and fishermen in the use of public lands through license fee differentials and various forms of nonfee regulations should be discouraged.

68. The homestead laws and the Desert Land Act should be repealed and replaced with statutory authority for the sale of public lands for intensive agriculture when that is the highest and best use of the land.

69. Public lands should be sold for agricultural purposes at market value in response to normal market demand. Unreserved public domain lands and lands in land utilization projects should be considered for disposal for intensive agriculture purposes.

70. The states should be given a greater role in the determination of which public lands should be sold for intensive agricultural purposes. The state governments should be given the right to certify or veto the potential agricultural use of public lands but only according to the availability of state water rights. Consideration should also be given to consistency of use with state or local economic development plans and zoning regulations.

71. The allocation of public lands to agricultural use should not be burdened by artificial and obsolete restraints such as acreage limitations on individual holdings, farm residency requirements, and the exclusions of corporations as eligible applicants.

72. Complete authority over all activities on the Outer Continental Shelf should continue to be vested by statute in the Federal Government. Moreover, all Federal functions per-

taining to that authority, including navigational safety, safety on or about structures and islands used for mineral activities, pollution control and supervision, mapping and charting, oceanographic and other scientific research, preservation and protection of the living resources of the sea, and occupancy uses of the Outer Continental Shelf, should be consolidated within the Government to the greatest possible degree.

73. Protection of the environment from adverse effects of activities on the Federal Outer Continental Shelf is a matter of national concern and is a responsibility of the Federal Government. The Commission's recommendations concerning improved protection and enhancement of the environment generally require separate recognition in connection with activities on the Shelf, and agencies having resource management responsibility on the Shelf should be required by statute to review practices periodically and consider recommendations from all interested sources, including the Council on Environmental Quality.

In addition, there must be a continuing statutory liability upon lessees for the cleanup of oil spills occasioned from drilling or production activities on Federal Outer Continental Shelf leases.

74. Proposals to open areas of the Outer Continental Shelf to leasing, including both the call for nomination of tracts and the invitation to bid, as well as operational orders and waivers of order requirements should be published in at least one newspaper of general circulation in each state adjacent to the area proposed for leasing or for which orders are promulgated.

Where a state, on the recommendation of local interests or otherwise, believes that Outer Continental Shelf leasing may create environmental hazards, or that necessary precautionary measures may not be provided, or that natural preservation of an area is in the best interest of the public, then, at the state's request, a public hearing should be held and specific findings issued concerning the objections raised.

75. The Outer Continental Shelf Lands Act should be amended to give the Secretary of the Interior authority for utilizing flexible methods of competitive sale. Flexible methods of pricing should be encouraged, rather than the present exclusive reliance on bonus bidding, plus a fixed royalty. In addition, the timing and size of lease sales, both of which are presently irregular, should be regularized. Furthermore, while discretion to reject bids should remain with the Secretary, this authority should be qualified to require that he state his reasons for rejection.

76. To the extent that adjacent states can prove net burdens resulting from onshore or offshore operations, in connection with Federal mineral leases on the Outer Continental Shelf, compensatory impact payments should be authorized and negotiated.

77. The Federal Government should undertake an expanded offshore program of collection and dissemination of basic geological and geophysical data.

As part of that program, information developed under exploration permits should be fully disclosed to the Government in advance of Outer Continental Shelf lease sales. However, industry evaluations of raw data should be treated as proprietary and excluded from mandatory disclosure.

78. An immediate effort should be undertaken to identify and protect those unique areas of national significance that exist on the public lands.

79. Recreation policies and programs on those public lands of less than national significance should be designed to meet needs identified by statewide recreation plans.

80. The Bureau of Outdoor Recreation should be directed to review, and empowered to disapprove, recreation proposals for public lands administered under general multiple-use policy if they are not in general conformity with statewide recreation plans.

81. A general recreation land use fee, collected through sale of annual permits, should be required of all public land recreation users and, where feasible, additional fees should be charged for use of facilities constructed at Federal expense.

82. Statutory guidelines should be established for resolving and minimizing conflicts among recreation uses and between outdoor recreation and other uses of public lands.

83. The Federal role in assuming responsibility for public accommodations in areas of national significance should be expanded. The Federal Government should, in some instances, finance and construct adequate facilities with operation and maintenance left to concessioners. The security of investment afforded National Park Service concessioners by the Concessioner Act of 1965 should be extended to concessioners operating under comparable conditions elsewhere on the Federal public lands.

84. Private enterprise should be encouraged to play a greater role in the development and management of intensive recreation use areas on those public lands not designated by statute for concessioner development.

85. Congress should provide guidelines for developing and

managing the public land resources for outdoor recreation. The system of recreation land classification recommended by the Outdoor Recreation Resources Review Commission should be refined and adopted as a statutory guide to be applied to all public lands.

86. Congress should authorize a program for acquiring and developing reasonable rights-of-way across private lands to provide a more extensive system of access for outdoor recreation and other uses of the public lands.

87. The direct Federal acquisition of land for recreation purposes should be restricted primarily to support the Federal role in acquiring and preserving areas of unique national significance; acquisitions of additions to Federal multiple use lands for recreation purposes should be limited to inholdings only.

88. The Land and Water Conservation Fund Act should be amended to improve financing of public land outdoor recreation programs. During the interim period until the recreation land use fee we recommend is adopted, the Golden Eagle Program should be continued. After essential acquisitions have been completed, the Land and Water Conservation Fund should be available for development of Federal public land areas.

89. Congress should consolidate and clarify in a single statute the policies relating to the occupancy purposes for which public lands may be made available.

90. Where practicable, planning and advanced classification of public lands for specific occupancy uses should be required.

91. Public land should be allocated to occupancy uses only where equally suitable private land is not abundantly available.

92. All individuals and entities generally empowered under state law to exercise an authorized occupancy privilege should be eligible applicants for occupancy uses, although a showing of financial and administrative capability should be required where large investments are involved.

Lands generally should be allocated competitively where there is more than one qualified private applicant, but preference should be given to state and local governments and nonprofit organizations to obtain land for public purposes and to REA cooperatives where incidental to regular REA operations.

93. In general, disposal should be the preferred policy in meeting the need for occupancy uses that require substantial investment, materially alter the land, and are comparatively permanent in character, except where uses are nonexclusive.

94. Where occupancy uses are authorized on retained lands by permit, lease, or otherwise, (a) the term and size of permits should be adequate to accommodate project and the required investment; (b) compensation should be paid when the use is terminated by Federal action prior to expiration of the prescribed term; and (c) a preference right to purchase should be accorded to such users dependent on the lands if they are later offered for disposal.

95. Public lands should not hereafter be made available under lease or permit for private residential and vacation purposes, and such existing uses should be phased out.

96. Land management agencies should have the authority to require a reciprocal right-of-way on equitable terms as a condition of a grant of a right-of-way across public land.

97. A new statutory framework should be enacted to make public lands available for the expansion of existing communities and for the development of new cities and towns.

98. Whenever the Federal Government utilizes its position as landowner to accomplish, indirectly, public policy objectives unrelated to protection or development of the public lands, the purpose to be achieved and the authority therefor should be provided expressly by statute.

99. While control and administration of occupancy uses should remain with the agencies managing the lands, assistance should be obtained from agencies having technical competence in connection with specific programs.

100. The Secretary of the Interior should be authorized to approve other uses of railroad rights-of-way with the consent of the affected railroad, and persons holding defective titles from railroads to right-of-way lands should be confirmed in their uses by the Federal Government and the affected railroads.

101. If the national interest dictates that lands should be retained in Federal ownership, it is the obligation of the United States to make certain that the burden of that policy is spread among all the people of the United States and is not borne only by those states and governments in whose area the lands are located.

Therefore, the Federal Government should make payments to compensate state and local governments for the tax immunity of Federal lands.

102. Payments in lieu of taxes should be made to state governments, but such payments should not attempt to provide full equivalency with payments that would be received if the property

was in private ownership. A public benefits discount of at least 10 percent but not more than 40 percent should be applied to payments made by the Government in order to give recognition to the intangible benefits that some public lands provide, while, at the same time, recognizing the continuing burdens imposed on state and local governments through the increased use of public lands. The payments to states should be conditioned on distribution to those local units of government where the Federal lands are located, subject to criteria and formulate established by the states. Extraordinary benefits and burdens should be treated separtely and payments made accordingly.

103. In a payments-in-lieu-of-taxes system, a transition period should be provided for states and counties to adjust in changing from the existing system.

104. No additional grants should be made to any of the 50 states.

105. Within a relatively brief period, perhaps from 3 to 5 years, the Secretary of the Interior, in consultation with the involved states, should be required to classify land as suitable for state indemnity selection, in reasonably compact units, and such classifications should aggregate at least 3 or 4 times the acreage due to each state. In the event the affected states do not agree, within 2 years thereafter, to satisfy their grants from the lands so classified, the Secretary should be required to report the differences to the Congress. If no resolution, legislative or otherwise, is reached at the end of 3 years after such report, making a total of 10 years of classification, selection, and negotiation, all such grants should be terminated.

106. Limitations originally placed by the Federal Government on the use of grant lands, or funds derived from them, should be eliminated.

107. The satisfaction of Federal land grants to Alaska should be expedited with the aim of completing selection by 1984 in accordance with the Statehood Act, and selections of land under the Alaska Statehood Act should have priority over any land classification program of the Bureau of Land Management.

108. Congress should require public land management agencies to utilize rulemaking to the fullest extent possible in interpreting statutes and exercising delegated discretion and should provide legislative restrictions to insure compliance with this goal.

109. Congress should direct the public land agencies to restructure their adjudication organization and procedures in

order to assure: (1) procedural due process; (2) greater third party participation; (3) objective administrative review of initial decisions; and (4) more expeditious decisionmaking.

110. Judicial review of public land adjudications should be expressly provided for by Congress.

111. Statutes and administrative practices defining unauthorized use of public lands should be clarified, and remedies available to the Federal Government should be uniform among land management agencies. Where necessary, statutory authority for policing by Federal agencies should be provided.

112. An intensified survey program to locate and mark boundaries of all public lands based upon a system of priorities, over a period of years, should be undertaken as the public interest requires.

113. The doctrine of adverse possession should be made applicable against the United States with respect to the public lands where the land has been occupied in good faith. Citizens should be permitted to bring quiet title actions in which the Government could be named as defendant. The defense of equitable estoppel and laches should be available in a suit brought by the Government for the purpose of trying title to real property or for ejectment.

In cases where questions of adverse possession, equitable estoppel, and laches do not apply, persons who claim an interest in public land based upon good faith, undisturbed, unauthorized occupancy for a substantial period of time, should be afforded an opportunity to purchase or lease such lands.

114. Statutory eligibility qualifications of applicants for public lands subject to disposal should generally avoid artificial restraints and promote maximum competition for such lands. Preferences for certain classes of applicants should be used sparingly.

115. Disposals in excess of a specified dollar or acreage amount should require congressional authorization.

116. Where land is disposed of at less than fair-market value, or where it is desired to assure that lands be used for the purpose disposed of for a limited period to avoid undue speculation, transfers should provide for a possibility of reverter, which should expire after a reasonable period of time.

117. Public lands generally should not be disposed of in an area unless adequate state or local zoning is in effect. In the absence of such zoning, and where disposal is otherwise desirable, covenants in Federal deeds should be used to protect public values.

118. Protective covenants should be included in Federal deeds to preserve important environmental values on public lands in certain situations, even where state or local zoning is in effect.

119. The general acquisition authority of the public land management agencies should be consistent with agency missions.

120. The general land acquisition authority of the public land management agencies should be revised to provide uniformity and comprehensiveness with respect to (1) the interests in lands which may be acquired, and (2) the techniques available to acquire them.

121. The public land management agencies should be authorized to employ a broad array of acquisition techniques on an experimental basis in order to determine which appear best adapted to meeting the problem of price escalation of lands required for Federal programs.

122. Congress should specify the general program needs for which lands may be acquired by each public land agency.

123. Justification standards for and oversight of public land acquisitions should be strengthened, and present statutory requirements for state consent to certain land acquisitions should be replaced with directives to engage in meaningful coordination of Federal acquisition programs with state and local governments.

124. General land exchange authority should be used primarily to block up existing Federal holdings or to accomplish minor land tenure adjustments in the public interest, but not for acquisition of major new Federal units.

125. Exchange authority of the public land management agencies should made uniform to permit (1) the exchange of all classes of real property interests, and (2) cash equalization within percentage limits of the value of the transaction.

126. Generally, within each department, all federally owned lands otherwise available for disposal should be subject to exchange, regardless of agency jurisdiction and geographic limitation.

127. Public land administrators should be authorized by law to dispense with the requirement of a formal appraisal: (1) in any sale or lease where there is a formal finding that competition exists, the sale or lease will be held under competitive bidding procedures, and the property does not have a value in excess of some specified amount set forth in the statute; and (2) whenever property can be acquired for less than some

specified price set forth in the statute, provided a formal finding is made that the property to be acquired has a value at least equal to the amount the Government would be paying in either a direct purchase or exchange.

128. Administration of all land acquisition programs for Department of the Interior agencies, including performance of the appraisal function, should be consolidated within the Department. Procedures, however, should be standardized for all public land management agencies.

129. Exclusive Federal legislative jurisdiction should be obtained, or retained, only in those uncommon instances where it is absolutely necessary to the Federal Government, and in such instances the United States should provide a statutory or regulatory code to govern the areas.

130. Federal departments and agencies should have the authority to retrocede exclusive Federal legislative jurisdiction to the states, with the consent of the states.

131. The Forest Service should be merged with the Department of the Interior into a new department of natural resources.

132. Greater emphasis should be placed on regional administration of public land programs.

133. The recommended consolidation of public land programs should be accompanied by a consolidation of congressional committee jurisdiction over public land programs into a single committee in each House of Congress.

134. The President's budget should include a consolidated budget for public land programs that shows the relationship between costs and benefits of each program.

135. Periodic regional public land programs should be authorized by statute as a basis for annual budgets and for appropriation of funds.

136. There should be a uniform, statutory basis for pricing goods and services furnished from the public lands.

137. Statutory authority should be provided for public land citizen advisory boards and guidelines for their operation should be established by statute.

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